

1. Record Nr.	UNISA996466272203316
Titolo	DNA Computing [[electronic resource]] : 12th International Meeting on DNA Computing, DNA12, Seoul, Korea, June 5-9, 2006, Revised Selected Papers / / edited by Chengde Mao, Takashi Yokomori
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2006
ISBN	3-540-68423-9
Edizione	[1st ed. 2006.]
Descrizione fisica	1 online resource (XII, 440 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4287
Disciplina	621.39/1
Soggetti	Computer science Algorithms Bioinformatics Artificial intelligence Theory of Computation Computational and Systems Biology Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Molecular and Membrane Computing Models -- Computing with Spiking Neural P Systems: Traces and Small Universal Systems -- Minimal Parallelism for Polarizationless P Systems -- P Systems with Active Membranes Characterize PSPACE -- All NP-Problems Can Be Solved in Polynomial Time by Accepting Networks of Splicing Processors of Constant Size -- Length-Separating Test Tube Systems -- Gene Assembly Algorithms for Ciliates -- Complexity Analysis -- Spectrum of a Pot for DNA Complexes -- On the Complexity of Graph Self-assembly in Accretive Systems -- Viral Genome Compression -- Sequence and Tile Designs and Their Properties -- DNA Codes and Their Properties -- In Search of Optimal Codes for DNA Computing -- DNA Sequence Design by Dynamic Neighborhood Searches -- Sequence Design for Stable DNA Tiles -- Hairpin Structures Defined by DNA Trajectories -- DNA Tile Self-assembly Models -- Design and Simulation of Self-repairing DNA Lattices -- On Times to Compute

Shapes in 2D Tile Self-assembly -- Capabilities and Limits of Compact Error Resilience Methods for Algorithmic Self-assembly in Two and Three Dimensions -- A Mathematical Approach to Cross-Linked Structures in Viral Capsids: Predicting the Architecture of Novel Containers for Drug Delivery -- Simulator and Software for DNA Computing -- A Framework for Modeling DNA Based Molecular Systems -- Uniquimer: A de Novo DNA Sequence Generation Computer Software for DNA Self-assembly -- A Probabilistic Model of the DNA Conformational Change -- Simulations of Microreactors: The Order of Things -- DNA Computing Algorithms and New Applications -- DNA Hypernetworks for Information Storage and Retrieval -- Abstraction Layers for Scalable Microfluidic Biocomputers -- Fuzzy Forecasting with DNA Computing -- "Reasoning" and "Talking" DNA: Can DNA Understand English? -- Novel Experimental Approaches -- A New Readout Approach in DNA Computing Based on Real-Time PCR with TaqMan Probes -- Automating the DNA Computer: Solving n-Variable 3-SAT Problems -- Local Area Manipulation of DNA Molecules for Photonic DNA Memory -- Experimental Solutions -- Unravel Four Hairpins! -- Displacement Whiplash PCR: Optimized Architecture and Experimental Validation -- MethyLogic: Implementation of Boolean Logic Using DNA Methylation -- Development of DNA Relational Database and Data Manipulation Experiments -- Experimental Validation of the Statistical Thermodynamic Model for Prediction of the Behavior of Autonomous Molecular Computers Based on DNA Hairpin Formation.
