1. Record Nr. UNINA9910807235603321

Autore	Patch Kimberly
Titolo	Nanomechanics and nanoelectronics : molecule-size machines / / Kimberly Patch
Pubbl/distr/stampa	Boston, : Technology Research News, c2004
Descrizione fisica	1 online resource (52 pages) : illustrations
Collana	TRN's Making the future report the state of an emerging technology and a look at what lies ahead ; ; no. 11
Soggetti	Technological innovations - Forecasting Computers - Technological innovations Cryptography - Technological innovations Information storage and retrieval systems - Technological innovations
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Nanomechanics and Nanoelectronics: Molecule-Size Machines -- Recent Key Developments -- Carbon Nanotube Electronics Nanotubes Tied to Silicon Circuit -- DNA Assembles Nanotube Transistor -- Study Shows DNA Will Fill Tubes -- Nanotube Shines Telecom Light -- Nanotube Web Could Mimic Brain -- Oxygen Makes Nanotube Memory -- Spot of Gold Makes Tiny Transistor -- Tiny Tubes Make Logic Circuits -- Nanotube Kinks Control Current -- Jolts Yield Nanotube Transistors -- Nanowire Electronics Chemicals Map Nanowire Arrays -- Coax Goes Nano -- Tiny Wires Turn Chips Inside Out -- HP Maps Molecular Memory -- Crossed Nanowires Make Lilliputian LEDs -- Nanowire Fabrication DNA Forms Nano Waffles -- Crystal Cracks Nurture Nanowires -- Chemists Brew Tiny Wires -- Atomic Scale Wires Speed Electrons -- Tiny Metal Wires Chart Nanoelectronics -- Molecular Electronics Hardy Molecule Makes Memory -- Molecular Memory Is Electric -- Artificial DNA Stacks Metal Atoms -- Molecule Toggle Makes Nano Logic -- Mixes Make Tiniest Transistors -- Molecule Connects Contacts -- Switch Narrows Molecular- Macroscopic Gap -- Nanotube Mechanics Twisted Nanotubes Have Spring -- Nudged Nested Nanotubes May Oscillate -- Nanotubes Make Microscopic Bearings -- Molecular Mechanics Natural Force Drives Molecular Ratchet -- Linked

Liquid Crystals Move Matter -- Molecular Motor Shifts Speeds -- Light-Driven Molecular Mechanics Molecular Shuttle Gains Light Throttle -- Light Powers Molecular Piston -- Crystal Changes Shape in Ultraviolet Light -- The Little Light-Sensitive Molecule That Could -- Biomolecular Mechanics DNA Motor Keeps Cranking -- RNA Forms Nanomotor -- Cell Parts Paint Picture -- Morphing DNA Makes Motor -- Biomotor Powers Propeller.