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Nota di contenuto	6th Forum on New Materials - Part C; Preface; Table of Contents; Chapter 1: Novel Functional Carbon Nanomaterials; Thermionic and Photon-Enhanced Emission from CVD Diamond: Influence of Nanostructure, Doping, and Substrate; Research of Diamond-Like Carbon Film Deposited by Double Pulsed Lasers; Evolution of Cu Surface Morphology and its Effect on Graphene Synthesized by Chemical Vapor Deposition; Liquid Crystal Assisted Selective Separation of Large Graphene Oxide and its Size Dependent Oxygen Reduction Catalytic Effect; The Possibilities of Graphenes Application in Textronic Devices Improvement of Performance of Paper Transistor Using Carbon-Nanotube-Composite Paper and its Application to Logic CircuitDevelopment of Carbon-Nanotube Composite Thread and its Application to ""Thread Transistor""; Energy Gap Associated to Photocatalytic Activity of MWCNT/TiO2/ZnO Nanocomposites; Carbon Coils-Polyurethane Composites for the Shielding Materials of Electromagnetic Interference; Chapter 2: Transport in Inorganic

Materials; The Influence of the Exterior Surface on Grain Boundary Mobility Measurements; Protonic SOFCs Using Perovskite-Type Conductors

Vacancy Diffusion under a Stress and Kinetic of Nanovoid Growth in Cubic Metals
Chapter 3: Non-Volatile Inorganic Memory Devices; Two-Terminal Non-Volatile Memory Devices Using Silicon Nanowires as the Storage Medium; Extraction of Filament Properties in Resistive Random Access Memory (ReRAM) Consisting of Binary-Transition-Metal-Oxides; Elucidation of Metal Diffusion Mechanism in Conducting-Bridge Random Access Memory (CB-RAM) Using First-Principle Calculation; Resistive Switching Behavior in Undoped $\text{-Fe}_2\text{O}_3$ Film with a Low Resistivity

Two Terminal Non-Volatile Memory Devices Using Diamond-Like Carbon and Silicon Nanostructures
Switching in Polymer Memory Devices Based on Polymer and Nanoparticles Admixture; Thermal Properties of In-Sb-Te Thin Films for Phase Change Memory Application; Thermal Conductivity Measurement of a Sb_2Te_3 Phase Change Nanowire; MRAM Concepts for Sub-Nanosecond Switching and Ultimate Scalability; Doped Hafnium Oxide - An Enabler for Ferroelectric Field Effect Transistors; Integration of STT-MRAMs for Embedded Cache Memories; Chapter 4: Novel Superconducting Materials

Superconductivity at $T_c = 36.5$ K in Na-Substituted SrFe_2As_2 Single Crystals
Role of Mg-B-O Nanostructural Inhomogenities on the Performance of Superconducting MgB_2 ; Microwave Measurements of Surface Resistance and Complex Conductivity of NdBaCuO Films; Critical Current Density and Pinning Energy of Partial Melted Sm-Based Superconductor; Critical Current of Bi-2212 Single Crystal by Doping Oxides as a Pinning Center; High Critical Currents in Single Grain $\text{YBa}_2\text{Cu}_3\text{O}_y$ Bulk Superconductors Produced by Infiltration-Growth
Development of Density Functional Theory for Plasmon-Assisted Superconductivity

Sommario/riassunto

Collection of selected, peer reviewed papers from the 6 th Forum on New Materials, part of CIMTEC 2014-13th International Ceramics Congress and 6 th Forum on New Materials, June 15-19, 2014, Montecatini Terme, Italy. The 32 papers are grouped as follows: Chapter 1: Novel Functional Carbon Nanomaterials, Chapter 2: Transport in Inorganic Materials, Chapter 3: Non-Volatile Inorganic Memory Devices, Chapter 4: Novel Superconducting Materials.
