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Titolo	Nanopackaging: From Nanomaterials to the Atomic Scale : Proceedings of the 1st International Workshop on Nanopackaging, Grenoble 27-28 June 2013 // edited by Xavier Baillin, Christian Joachim, Gilles Poupon
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Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (194 p.)
Collana	Advances in Atom and Single Molecule Machines, , 2193-9705
Disciplina	621.381046
Soggetti	Nanochemistry Nanotechnology Biophysics
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 at the end of each chapters.
Nota di contenuto	Utilization of Peridynamic Theory for Modeling at the Nano-scale -- DNA Metallization Processes and Nanoelectronics -- Evaluation of leakage current in 1-D silicon dangling-bond wire due to dopants -- Direct Integration of Carbon Nanotubes in Si Microsystems -- Nanopackaging requirements for atomic scale circuits and molecule-machines -- Single crystal Au triangles as reconfigurable contacts for atomically smooth surfaces: Ultra High Vacuum transfer printing -- Site-selective self-assembly of nano-objects on a planar substrate based on surface chemical functionalization -- Silicon technologies for nano-scale device packaging -- Designing Carbon Nanotubes Interconnects for Radio Frequency Applications -- Packaging of bucky-balls/ bucky-tubes in transparent photo-active inorganic polymers: New hope in the area of electronics and optoelectronics -- Novel Nanostructured Passives for RF and Power Applications: Nanopackaging with Passive Components.
Sommario/riassunto	This book is a first attempt to merge two different communities: scientists and technologists. Therefore, it is not a general overview covering all the fields of nanopackaging, but is mainly focused on two topics. The first topic deals with atomic scale devices or circuit requirements, as well as related recent technological developments; for

example, surface science engineering and atomic scale interconnects studies. The second main part of the book brings CNT nano-materials solutions for resolving interconnect or thermal management problems in microelectronics device packaging. This book is not just useful for those who attended the International Workshop on Nanopackaging in Grenoble, but can provide valuable information to scientists and technologists in the nanopackaging community.
