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Altri autori (Persone)	AltenbachHolm <1956-> MorozovN. F <1932-> (Nikita Fedorovich)
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Nota di contenuto	Mathematical Study of Boundary-Value Problems of Linear Elasticity with Surface Stresses -- On the Influence of Residual Surface Stresses on the Properties of Structures at the Nanoscale -- On the Isotropic Elastic Properties of Graphene Crystal Lattice -- A Comparison of Atomistic and Surface Enhanced Continuum Approaches at Finite Temperature -- Surface Mechanics and Full-Field Measurements: Investigation of the Electro-Elastic Coupling -- Effect of a Type of Loading on Stresses at a Planar Boundary of a Nanomaterial -- Surface Stress in an Elastic Plane with a Nearly Circular Hole -- Glass Spheres - Functionalization, Surface Modification and Mechanical Properties -- Spectral Properties of Piezoelectric Bodies with Surface Effects -- Stability and Structural Transitions in Crystal Lattices -- Mathematical Modeling of Phenomena Caused by Surface Stresses in Solids -- Buckling of a Supported Annular Plate with a Non-Euclidean Metric -- On the Modeling of Surface and Interface Elastic Effects in Case of Eigenstrains -- On Kinetics of Chemical Reaction Fronts in Elastic Solids.
Sommario/riassunto	This book summarizes the actual state of the art and future trends of surface effects in solid mechanics. Surface effects are more and more important in the precise description of the behavior of advanced

materials. One of the reasons for this is the well-known from the experiments fact that the mechanical properties are significantly influenced if the structural size is very small like, for example, nanostructures. In this book, various authors study the influence of surface effects in the elasticity, plasticity, viscoelasticity. In addition, the authors discuss all important different approaches to model such effects. These are based on various theoretical frameworks such as continuum theories or molecular modeling. The book also presents applications of the modeling approaches.