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Altri autori (Persone)	ChenXi
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Nota di contenuto	Mechanical Self-Assembly in Nature -- Mechanical Self-Assembly vs. Morphogenesis -- Shaping by Active Deformation of Soft Elastic Sheets -- Ion Beam Induced Self-Assembled Wrinkles -- A Kinetics Approach to Surface Wrinkling of Elastic Thin Films -- Crease Instability on the Surface of a Solid -- Buckling Delamination of Compressed Thin Films -- Delaminated Film Buckling Microchannels -- Mechanical Self-Assembly on Curved Substrates. .
Sommario/riassunto	Mechanical Self-Assembly: Science and Applications introduces a novel category of self-assembly driven by mechanical forces. This book discusses self-assembly in various types of small material structures including thin films, surfaces, and micro- and nano-wires, as well as the practice's potential application in micro and nanoelectronics, MEMS/NEMS, and biomedical engineering. The mechanical self-assembly process is inherently quick, simple, and cost-effective, as well as accessible to a large number of materials, such as curved surfaces for forming three-dimensional small structures. Mechanical self-assembly is complementary to, and sometimes offer advantages over, the traditional micro- and nano-fabrication. This book also: Presents a highly original aspect of the science of self-assembly Describes the novel methods of mechanical assembly used to fabricate a variety of new three-dimensional material structures in simple and cost-effective ways Provides simple insights to a number of biological

systems and processes Elucidates underlying mechanics principles of spontaneous pattern formations Mechanical Self-Assembly: Science and Applications is an ideal book for graduate students and engineers involved in the field of mechanical self-assembly. .