

1. Record Nr.	UNINA9910346841203321
Autore	Tsui Ting
Titolo	Small Scale Deformation using Advanced Nanoindentation Techniques / Ting Tsui, Alex A. Volinsky
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2019 Basel, Switzerland : , : MDPI, , 2019
ISBN	9783038979678 3038979678
Descrizione fisica	1 electronic resource (168 p.)
Soggetti	Technology: general issues
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>Small scale mechanical deformations have gained a significant interest over the past few decades, driven by the advances in integrated circuits and microelectromechanical systems. One of the most powerful and versatile characterization methods is the nanoindentation technique. The capabilities of these depth-sensing instruments have been improved considerably. They can perform experiments in vacuum and at high temperatures, such as in-situ SEM and TEM nanoindenters. This allows researchers to visualize mechanical deformations and dislocations motion in real time. Time-dependent behavior of soft materials has also been studied in recent research works. This Special Issue on "Small Scale Deformation using Advanced Nanoindentation Techniques"; will provide a forum for researchers from the academic and industrial communities to present advances in the field of small scale contact mechanics. Materials of interest include metals, glass, and ceramics. Manuscripts related to deformations of biomaterials and biological related specimens are also welcome. Topics of interest include, but are not limited to: Small scale fracture Nanoscale plasticity and creep Size-dependent deformation phenomena Deformation of biological cells Mechanical properties of cellular and sub-cellular components Novel mechanical properties characterization techniques</p>

