Record Nr. UNINA9910416143103321 Modeling, Synthesis and Fracture of Advanced Materials for Industrial **Titolo** and Medical Applications / / edited by Sergei M. Aizikovich, Holm Altenbach, Victor Eremeyev, Michael Vincent Swain, Alexander Galybin Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2020 **ISBN** 3-030-48161-1 Edizione [1st ed. 2020.] 1 online resource (XV, 187 p. 106 illus., 74 illus. in color.) Descrizione fisica Advanced Structured Materials, , 1869-8433; ; 136 Collana Disciplina 620.11292 Soggetti **Biomaterials** Thermodynamics Heat engineering Heat transfer Mass transfer Nanotechnology Engineering Thermodynamics, Heat and Mass Transfer Lingua di pubblicazione Inglese **Formato** Materiale a stampa Monografia Livello bibliografico Nota di bibliografia Includes bibliographical references. A Continual Model of Damage for Analyzing Long-Term Strength of Nota di contenuto Materials And Structural Elements -- Direct and Inverse Problems for Interface Crack Identification in Layered Media -- Experimental and Clinical Investigation of Carbon Nanostructural Material for Orthopedic Applications -- In Vitro Degradation Test of gd, Si- Substituted Hydroxyapatite -- Deformation and Fracture of Titanium Alloys under Dynamic Loading -- Experimental and Theoretical Solution of the Problem on the Generating of Fatigue Wear in Heterogeneous Materials and Coatings -- The Method of Elastotonometry for Cornea Weakening in the Peripheral Annual Zone -- Nanoindentation Derived Mechanical Properties of Human Enamel and Dentine Subjected to Etching with Different Concentration of Citric Acid -- Interface Frictional Behaviour of Aluminium and Iron Powder Compacts at Room Temperature -- The Efficiency of Re-Dental Orthopedic Treatment of Patients with Extensive

Dentition Defects due to the Flexibility of the Bases of Remov-Able

Dentures and Optimization of their Attachment.

Sommario/riassunto

This book gathers papers presented at the international workshop PMSDAM'19. The respective contributions offer valuable insights for researchers working on numerical solutions to advanced materials problems. The problems concerning the remineralization of teeth are considered. Of particular interest are articles exploring topics at the interface of different disciplines.