1. Record Nr. UNINA9910838269803321 Autore Rudolf Rebeka **Titolo** Advanced Dental Metallic Materials [[electronic resource] /] / by Rebeka Rudolf, Peter Majeri, Vojkan Lazi, Karlo T. Rai Cham:,: Springer Nature Switzerland:,: Imprint: Springer,, 2024 Pubbl/distr/stampa **ISBN** 3-031-47351-5 Edizione [1st ed. 2024.] Descrizione fisica 1 online resource (187 pages) Collana Springer Series in Materials Science, , 2196-2812;; 338 Altri autori (Persone) MajeriPeter LaziVojkan RaiKarlo T Disciplina 620.16 Soggetti Metals **Biomaterials** Dentistry Corrosion and anti-corrosives Nanotechnology Metals and Alloys Corrosion Nanoscale Design, Synthesis and Processing Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction -- Frontiers in Stability of Titanium Implants -- Processing Nota di contenuto of Cobalt-Chrome Dental Alloys -- Prosperous Shape Memory Alloys --Emerging Gold Dental Alloys -- Nanofoils in Dental Joining Practice. Sommario/riassunto This book delivers a broad and concise look at advanced metallic

This book delivers a broad and concise look at advanced metallic materials used for dental applications. Due to their excellent mechanical and biological properties, the use of metallic materials in dentistry has continued since time immemorial. In that sense, this book aims to bring the readers closer to the specific purpose of dental metallic materials meeting specific criteria and materials properties such as biocompatibility, non-toxicity, resistance to corrosion, long-term durability, appropriate strength and toughness, as well as corresponding values of modulus of elasticity. Following a comprehensive introduction to the field, the book discusses topical

issues such as the long-term stability of dental titanium implants, processing of cobalt-chrome dental alloys, emerging gold dental alloys, and novel nanofoils used for dental joining. Featuring numerous illustrative examples of experimental outcomes, this book is an ideal resource for materials scientists and metallurgists working on advanced alloys for dental applications.