



**Edition:** 1st edition 2003  
**pages:** 296  
**Images:** 183  
**Cover:** Softcover  
**ISBN:** 978-0-86715-399-6  
**Published:** April 2003

#### KVM - Der Medizinverlag

📍 Ifenpfad 2-4  
12107 Berlin  
Germany

☎ +49 (0) 30 / 76180-5

📠 +49 (0) 30 / 76180-680

✉ [info@quintessenz.de](mailto:info@quintessenz.de)

🌐 <https://www.quintessence-publishing.com/kvm/de>

## Book information

**Authors:** Georges Eliades  
**Title:** Dental Materials In Vivo  
**Subtitle:** Aging and Related Phenomena  
**Short text:**

This comprehensive review brings together research by biomaterials experts in various fields of dentistry, including oral and maxillofacial surgery, orthodontics, periodontics, prosthodontics, and restorative dentistry. Through the presentation of evidence derived exclusively from in vivo studies, the mechanisms governing the aging of materials placed in the oral cavity are clarified and selective aspects of the in vivo performance of materials demonstrated.

#### Table of Contents

Foreword

Preface

#### Section I: Overview

01. General Aspects of Biomaterial Surface Alterations Following Exposure to Biologic Fluids/George Eliades, Theodore Eliades, and Manolis Vavuranakis

#### Section II: Prosthodontics and Implant Dentistry

02. Aging of Casting Alloys Used in Prosthodontics and Restorative Dentistry/William A. Brantley

03. Ceramic Behavior Under Different Environmental and Loading Conditions/James L. Drummond

04. Characterization of Retrieved Implants: Titanium, Titanium Alloys, and Hydroxyapatite Coatings/Efstratios Papazoglou, William A. Brantley, and Edwin A. McGlumphy

#### Section III: Restorative Dentistry

05. Alterations of Dental Amalgam/Miroslav I. Marek

06. Aging of Glass-Ionomer Cements/Aphrodite I. Kakaboura

07. Degradation Mechanisms of Dental Resin Composites/Karl-Johan Söderholm

#### Section IV: Orthodontics

08. Disintegration of Orthodontic Appliances/Arne Hensten-Pettersen and Nils Jacobsen

09. Characteristics of Used Orthodontic Brackets/Claude G. Matasa

10. Aging of Orthodontic Utilities and Auxiliaries/Theodore Eliades, George Eliades, William A. Brantley, and David C. Watts

#### Section V: Endodontics

11. Aging of Endodontic Instruments and Materials/Spiros Zinelis and John Margelos

#### Section VI: Oral and Maxillofacial Surgery

12. Aging of Stainless Steel Oral and Maxillofacial Surgical Implants/Elliott J. Sutow

13. Leaching of Metallic Ions from Plates and Screws Used in Jaw Fracture Fixation/Ian R. Matthew

#### Section VII: Periodontology

14. Sutures in the Oral Cavity/J. Anthony von Fraunhofer

15. Aging of Bioactive Glass Bone-Grafting Materials/John C. Mitchell

**Categories:** Restorative Dentistry