

Features:

- **500 full-color photos and illustrations** show concepts, dental instruments, and restorations.
- **Key terms** are defined at the beginning of each chapter, covering terminology related to dental biomaterials and science.
- **Critical thinking questions** stimulate thinking and emphasize important concepts and principles.
- **Logical, five-part organization of chapters** makes the content easier to read and understand, with units on General Classes and Properties of Dental Materials, Direct Restorative Materials, Indirect Restorative Materials, Fabrication of Prostheses, and Assessing Dental Restorations.
- **Balance between materials science and manipulation** bridges the gap of knowledge between dentists and lab technicians.
- **Major emphasis on biocompatibility** serves as a useful guide to the principles and clinical implications of restorative materials safety.
- **Diverse and respected pool of contributors** lends credibility and experience to each dental science topic.

New To This Edition:

- **NEW! Three new chapters** are added: *Digital Technology in Dentistry*, *In Vitro Research of Dental Materials*, and *Clinical Research of Restorations*.

Περιεχόμενα:**PART I: GENERAL CLASSES AND PROPERTIES OF DENTAL MATERIALS**

1. Overview of Preventive and Restorative Materials
2. Structure of Matter, General Classes of Materials and Principles of Adhesion
3. Chemical and Physical Properties of Solids
4. Mechanical Properties of Solids

PART II: DIRECT RESTORATIVE MATERIALS

5. Resin-Based Composites
6. Bonding Mechanism and Bonding Agents
7. Cements
8. Dental Amalgams

PART III: INDIRECT RESTORATIVE MATERIALS

9. Metals
10. Ceramic-Based Materials
11. Prosthetic Polymers and Resins
12. Dental Implants

PART IV: FABRICATION OF PROSTHESES

13. Auxiliary Materials
14. Casting Investments and Casting Procedures
15. Digital Technology in Dentistry **NEW!**
16. Finishing and Polishing Prostheses

PART V: ASSESSING DENTAL RESTORATIONS

17. Biocompatibility
18. In Vitro Research of Dental Materials **NEW!**
19. Clinical Research of Restorations **NEW!**
20. Emerging Technologies