
SECTION 2.5

Applications of Biomaterials

OUTLINE

Introduction to Applications of Biomaterials

Cardiovascular Medical Devices: Heart Valves, Pacemakers and Defibrillators, Mechanical Circulatory Support, and Other Intracardiac Devices

Cardiovascular Medical Devices: Stents, Grafts, Stent-Grafts and Other Endovascular Devices

Extracorporeal Artificial Organs and Therapeutic Devices

Orthopedic Applications

Dental Applications

Ophthalmologic Applications: Introduction

Bioelectronic Neural Implants

Burn Dressings and Skin Substitutes

Description and Definition of Adhesives, and Related Terminology

Biomaterials for Immunoengineering

Biomaterials-Based Model Systems to Study Tumor–Microenvironment Interactions

Drug Delivery Systems

Responsive Polymers in the Fabrication of Enzyme-Based Biosensors