

Contents

List of contributing authors — IX

Madhumita Ghosh Datta

Chapter 1

Current status of biomedical waste generation in the world — 1

Arti Gaur, Chirag Prajapati, Nidhi Jain, and Lovelesh Singh Saini

Chapter 2

Conventional and modern biomedical waste management technologies — 15

Megha Duggal and Manoj Pal

Chapter 3

Biomedical waste management: challenges and opportunities — 39

Kumud Kannoja, Divya Joshi, and Damini Maithani

Chapter 4

Technological advancements for biomedical waste management — 51

Harsh Pande, Joshua C. Varughese, Khushi Singh, Sejal Sonecha, Dhruvi Prajapati, Karm Joshi, Hritik Kumar, Shivani Bhutani, and Manali Singh

Chapter 5

Segregation of biomedical waste: methodologies and importance — 65

Shivangee Solanki and Hemanga Kumar Das

Chapter 6

Metal recovery from biomedical waste: prospects and Perspectives — 85

Alok Ranjan, Shruti Kaushik, Manali Singh, and Shivani Bhutani

Chapter 7

Biomedical waste treatment and energy generation — 103

Divya Joshi, Aditi Saxena, Navdeep Sharma, and Deep Chandra Suyal

Chapter 8

Biomedical waste and bioenergy: prospects and challenges — 115

Achhada Ujalkaur Avatsingh, Shilippreet Kour, Shilpa Sharma,
and Nasib Singh

Chapter 9

Utilization of biomedical waste as construction substitute — 131

Saurabhkumar Mehta and Usha Sabharwal

Chapter 10

Segregation of biomedical waste: methodologies and importance — 147

Usha Sabharwal and Saurabhkumar Mehta

Chapter 11

Biomedical waste management strategies: prospects and future scenario — 161

Deep Dalvi, Shivangee Solanki, and Hemanga Kumar Das

Chapter 12

**The significance of information technology in enhancing revenue generation
from biomedical waste management — 179**

Vanlalrema Kuki and Debajit Bhuyan

Chapter 13

Economics and market scenario of biomedical waste management — 193

Priyanka Chaudhary and Divya Joshi

Chapter 14

Biomedical waste: economics and market trends — 207

Pragati Srivastava, Jasdeep Chathrath Padaria, and Manvika Sahgal

Chapter 15

**Government initiatives and futuristic plans for waste management
and revenue generation — 219**

Bharti Kukreti, Neetika Naudiyal, Amir Khan, Viabhav Kumar Upadhayay,
Ashish Kumar, Perna Rani, and Ajay Veer Singh

Chapter 16

Biomedical waste: environmental impacts and sustainable management — 231

Simran Choudhury and Hemanga Kumar Das

Chapter 17

**Environmental impact of diverse biomedical waste and their sustainable
management strategies — 261**

Rosalba Argumedo-Delira and Janeth Alducin-Ruiz

Chapter 18

Recovery of silver from used X-ray film for *Sphingomonas paucimobilis*

MX8 — 273

Index — 283