



Publishers :

Thanuj International Publishers
8/173-B, Vengayapalayam, Rasipuram,
Namakkal, Tamil Nadu, India - 637 406.
E-mail : thanujinternationalpublishers@gmail.com

Printers :

Dhazh Computers (Graphic Designer)
No: 442- A, 10th East Cross Street,
Munthirithoppu, Annanagar,
Madurai – 20, Tamil Nadu, India.
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ISBN : 978-93-94638-32-7



Bioplastics: An Introduction - Nirmala Rajkumar.

BIOPLASTICS

An Introduction

First Edition

Editor : Nirmala Rajkumar



**Thanuj International
Publishers**



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An Introduction

Editor
Nirmala Rajkumar

Publisher Info

First published in India in 2023

This edition published by Thanuj International Publishers

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ISBN: 978-93-94638-32-7

Price: Rs: 850.00

Published by:

Thanuj International Publishers,
8/173-B, Vengayapalayam, Kakkaveri, Rasipuram,
Namakkal, Tamil Nadu,
India – 637406.

www.darshanpublishers.com

E-mail: thanujinternationalpublishers@gmail.com



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Abbreviations

SEM	Scanning Electron Microscopy
MPa	Mega Pascals
ECH	Epichlorohydrin
RG	Rich Globulins
SDS-PAGE	Sodium Dodecyl Sulfate- Polyacrylamide Gel Electrophoresis
SAB	Superabsorbent
NLE	Neem Leaf Extract
NSO	Neem Seed Oil
NPEA	Neem Oil Based Polyester Amide
PCL	Polycaprolactone
PLA	Polylactic Acid
PA	Polyanhydride
NPPE	Npea, Pcl, Pla, Ea
PHA	Polyhydroxyalkanoates
PHB	Polyhydroxybutyrate
PHBV	Poly(3-Hydroxybutyrate-Co-3-Hydroxy Valerate)
PLA	Polylactic Acid
PCL	Polycaprolactone
PE	Polyethylene
PET	Polyethylene Terephthalate
PTT	Polytrimethylene Terephthalate
PBS	Polybutylene Succinate
PP	Polypropylene
PVS	Poly-Vinyl Siloxane
PDO	Propanediol
PBAT	Polybutylene Adipate/Terephthalate
TPS	Thermoplastic Starch

OVA	Ovalbumin
HSA	Human Serum Albumin
BSA	Bovine Serum Albumin
KDa	Kilodaltons
ARDS	Adult Respiratory Distress Syndrome
ECM	Extra Cellular Matrix
M.W	Molecular Weight
Da	Dalton
PI	Isoelectric Point
HG	Homogalacturonan
PH	Power Of Hydrogen
PES	Polyether Sulfone
UA	Uronic Acid
Gal A	Galacturonic Acid
XPS	X-Ray Photoelectron Spectroscopy
FTIR	Fourier-Transform Infrared Spectroscopy
LFA	Lateral Flow Assay
BP	Blood Pressure
IL1	Interleukin 1
IL2	Interleukin 2
HCL	Hydrochloride
NaOH	Sodium Hydroxide
DNA	Deoxyribonucleic acid
DVD	Digital versatile disc
PS	Polystyrene
PLA	Polylactic Acid
PHA	Poly hydroxyalkanoates
XPS	Extruded Polystyrene
PPM	Parts Per Million
PHA	Polyhydroxyalkanoates
PHB	Polyhydroxy Butyrate
MCL	Medium Chain Length
SCL	Short Chain Length
PHA	Polyhydroxyalkanoates

PHB	polyhydroxy butyrate
MCL	Medium chain length
SCL	Shortchainlength
ALG	Alginate
PARG	poly-I-arginine
LbL	layer-by-layer
EUL	Eudragit L 100
SA	sodium alginate
CH	ceftazidime hydrate
GG blocks	guluronic-guluronic
EDC	electronic data capture
NMR	Nuclear magnetic resonance

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Preface

Bioplastics are a kind of plastic that can be made from the natural source or from renewable source. Bioplastics are biodegradable. Bioplastic is not a single material. They comprises of different materials with different applications. Bioplastics are used to manufacture disposable items like packaging, containers, straws, bags and bottles, and in non-disposable carpet, plastic piping, phone casings, 3D printing, car insulation and medical implants. They are environmentally safe and reducing dependency on fossil reserves. This book discuss about the different bioplastics from different natural resources. It will be useful for the undergraduate, postgraduate and research scholars to get an idea about bioplastics.

Dr.Nirmala Rajkumar

Acknowledgements

First and foremost, I thank the **GOD Almighty** for the successful completion of this book.

I would like to thank our Management, Principal, for the motivation to Publish books

I would like to thank School of science Dean, HOD and Faculty Members of Biotechnology Department, Hindustan College of Arts & Science Padur, Chennai - 603103 for their consistent support and encouragement.

I would like to thank Centre for Research and Development, Hindustan College of Arts & Science, Padur, Chennai - 603103 for the support and encouragement.

I would like to thank the publishing team at Thanuj International Publishers, Tamil Nadu, India.

I would like to thank Dhazh Computers for their valuable support to bring out this Edition.

Dr.Nirmala Rajkumar

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My heartfelt thanks to the contributors from the Department of Biotechnology, Hindustan College of Arts & Science, Department of Biotechnology, Padur, Chennai – 603103.

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