

1. Record Nr.	UNINA9911031576003321
Autore	Bhatia Ravi Kant
Titolo	Biocolours : Revolutionizing the Palette of a Sustainable World // edited by Ravi Kant Bhatia, Abhishek Walia
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	981-9517-38-9
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (369 pages)
Collana	Biomedical and Life Sciences Series
Altri autori (Persone)	WaliaAbhishek
Disciplina	628.5 660.6
Soggetti	Bioremediation Industrial microbiology Plant biotechnology Food - Microbiology Building materials Ecology Environmental Biotechnology Industrial Microbiology Plant Biotechnology Food Microbiology Wood, fabric, and textiles Environmental Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. The Science of Biocolour: An overview -- 2. Biochemistry of Biocolours -- 3. Molecular Insights into Bacterial Pigments: Biosynthetic pathways, Genomics, and Biotechnological Potential -- 4. Iant and Algae Based Biocolours -- 5. Microbial and Fungal Biocolours -- 6. Insect and Animal Derived Biocolors -- 7. Analytical Techniques in Biocolor analysis -- 8. Bioprocessing of Biocolors for Large Scale Production -- 9. Applications of biocolours in different industries -- 10. Environmental Impact and Regulatory Aspects of Biocolours -- 11. The Future Perspective of Biocolours in a Sustainable World.
Sommario/riassunto	The book discusses the transformative power of natural pigments

derived from biological sources to combat the environmental and health challenges posed by synthetic dyes. It highlights the growing global demand for biocolours as a viable and impactful alternative to synthetic counterparts by focusing on sustainability and eco-friendliness. Chapters explore diverse sources of biocolours, including plants, microorganisms, algae, insects, and animals. It comprehensively addresses the science behind biocolours, their biochemistry, production methods, extraction and purification strategies, and industrial applications. The chapters also discuss large-scale bioprocessing techniques, environmental impacts, regulatory frameworks, and the future potential of biocolours in creating a sustainable and vibrant world. This book serves as a valuable resource for researchers, industry professionals, students, policymakers, and anyone invested in advancing sustainable industrial practices. It provides practical insights, scientific expertise, and innovative approaches, making it an indispensable guide for understanding and leveraging biocolours in modern industries.
