

1. Record Nr.	UNINA9910918598003321
Autore	Campos Chisté Renan
Titolo	Carotenoids : Trends and Advances // edited by Renan Campos Chisté, Eloisa Helena de Aguiar Andrade, Mozaniel Santana de Oliveira
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031753220
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (288 pages)
Altri autori (Persone)	Helena de Aguiar AndradeEloisa Santana de OliveiraMozaniel
Disciplina	641.3 664
Soggetti	Food science Food - Analysis Chemistry Agriculture Food Science Food Chemistry Food Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction to Carotenoids and Overview of their Biosynthesis -- Biosynthesis of Carotenoids in Plants and Microorganisms -- Biosynthesis of carotenoids in insects - what we currently know -- C30 Carotenoids - biosynthesis, chemical and biological aspects -- Overview of Recent Trends on Non-conventional Approaches to Extract Carotenoids -- Encapsulation Techniques for the Preservation of Carotenoids' Bioactivity -- Recent Approaches for the Bioaccessibility and Bioavailability of Carotenoids -- Carotenoids from Marine Sources - General Aspects, Biological Properties and Industrial Applications -- Uses of Microorganisms for Carotenoid Production - Contribution of Modern Technologies in Food Sustainability -- Composition and Health Benefits of Carotenoids in Foods and Feeds -- Therapeutic effects of carotenoids - Trends and advances -- Neuroprotective Potential of Carotenoids.

Carotenoids are one of the most important groups of bioactive compounds in nature. They have been used in the food, cosmetic and pharmaceutical industries due to their wide range of chemical and biological properties. Currently, industrial use of carotenoids comes from chemical synthesis, but greener and biotechnological engineering approaches for carotenoid production are coming into focus. The public has also become aware of the therapeutic and health benefits of carotenoids, making them an increasingly popular with consumers. Carotenoids: Trends and Advances focuses on recent advances in biosynthesis of carotenoids in foods, plants, microorganisms and insects as well as health benefits and therapeutic uses. Advanced production techniques and technologies are focused on, including biotechnological engineering approaches and agricultural methods. Recent approaches for the bioaccessibility and bioavailability of carotenoids are covered in full. The preservation of the bioactivity of carotenoids through encapsulation and biofortification is a major focus, with extensive coverage of green processes. The text provides a comprehensive update for researchers across a wide range of relevant industries interested in the most current advances in carotenoids.

---