

عنوان مقاله:

Latest Types of Beta-Carotene Production Methods from Brown Algae

محل انتشار:

نخستین کنفرانس بین المللی اقتصاد دریا پایه (سال: 1402)

تعداد صفحات اصل مقاله: 1

نویسنده:

Navid Ahmadi Nasab - Hormoz Research Center, University of Hormozgan, Bandar Abbas, Iran. Department of Marine Biology, Faculty of Marine Science and Technology, University of Hormozgan, Bandar Abbas, Iran

خلاصه مقاله:

Different methods are used for the commercial production of beta-carotene, including its extraction from natural sources, chemical synthesis, biosynthesis and genetic engineering methods. In recent years, there have been advancements in the production methods of beta-carotene from brown algae. In these new methods, various types of brown algae such as *Laminaria japonica*, *Saccharina japonica*, and *Fucus vesiculosus* have been used. These types of algae are rich in carotenoids, including beta-carotene, making them a suitable source for production. Integrating observations from prokaryotic systems into their work enabled researchers to clone the majority of carotenoid biosynthetic enzymes from plants during the ۱۹۹۰s. In addition, nanoscience has provided a significant solution in enhancing beta-carotene production from brown algae. Using environmentally benign polymers, such as brown algae known as Phaeophyta, researchers have been able to increase the yield of beta-carotene while reducing costs and environmental impact. These advancements in beta-carotene production from brown algae have shown promise in meeting the growing demand for this valuable pigment in various industries, including food and nutraceuticals. Researchers have also utilized genetic engineering methods to enhance the production of beta-carotene in brown algae, further improving their efficiency as a source for this pigment.

کلمات کلیدی:

Beta-carotene, Brown algae, Natural sources, Biosynthesis, Genetic engineering methods

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1994642>

