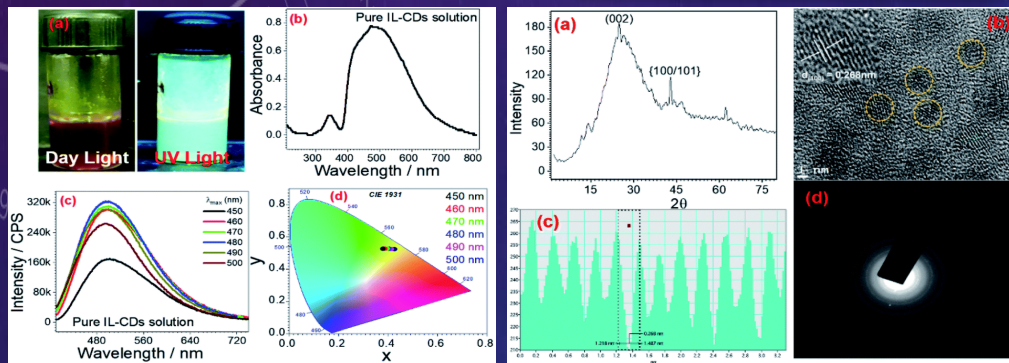
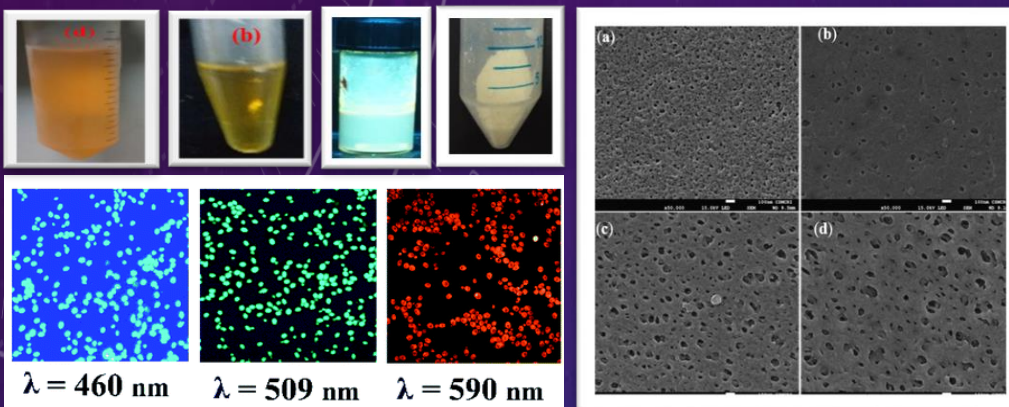




CSIR-CSMCRI

G. B. Marg, Bhavnagar-364002, Gujarat

ALL IN ONE MICROALGAE



The Know-How on "Advance manufacturing techniques for producing Fucoxanthin, ω 3 PUFAs enriched Algae oil, Fluorescent Carbon dots and 3D Natural Bio-silica from a single cell marine microalgae" is new to India and limited numbers of entrepreneurs in the market. Hence, a certain level of monopoly may be enjoyed.

SALIENT FEATURES

- Five products from one microalgae.
- 100% biomass utilization,
- Improved Bio-refinery approach is being used.
- Purity attend 82-98% depending upon the products.
- Seawater is the main ingredients,
- No or less waste generation.
- Everyday or weekly or monthly basis productions may be designed.



TRL 6



ASSURED

AFFORDABILITY

Cheaper production cost as compared to Commercially available in the market.

SCALABILITY AND SUSTAINABILITY

Production unit may be run in Urban as well as rural areas.

RAPIDITY

Everyday to weekly or monthly basis production may possible.

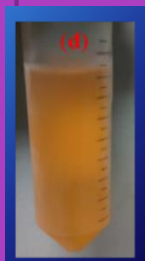
DISTINCTIVE

Intermediary Products will be useful for pharmaceutical ,Nutraceutical and cosmetics.

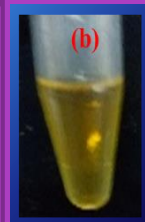
Make in India

Indigenous technology will help to reduce the production cost .

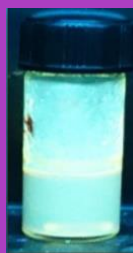
PRODUCTS DETAILS



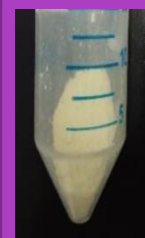
- ❑ The purity of Fucoxanthin is 85-88%.
- ❑ Fucoxanthin possesses numerous biological activities and health-stimulating properties such as skin and ocular protective, anti-diabetic, anti-obese, antioxidant, anti-cancer, anti-inflammatory and anti-malarial activity.



- ❑ Algae Oil (DHA & EPA enriched ω 3 PUFA) with 80-82% purity is being produced using bio-refinery approach.
- ❑ Algaeoil is having pharmaceutical & nutraceutical Applications.



- ❑ This fluorescent carbon dots are having wide range of emission energy (460-590nm).
- ❑ Fluorescent carbon dots are being used for bio-imaging in scientific laboratory and bio-medical laboratories.



- ❑ 3D natural bio-silica (98% purity) is also being produced.
- ❑ 3D bio-silica has various applications including drug delivery, cosmetics, and food supplementary for animals and human beings.



- ❑ Live micro-algal culture (100%) may also be used during carrying seedlings of fish/prawn from one place to another place.



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