

Applications of Marine Red Algae *Kappaphycus alvarezii* †

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Abstract: In the marine environment, numerous algae are present abundantly *Kappaphycus alvarezii* is red algae are the main source of carrageenans, a polysaccharide, and a food additive. A bioactive compound derived from this carrageenan is used as an emulsifying and stabilizing agent due to its gelling and thickening properties. Its stabilizing property is utilized to prepare various food products such as beer, cheese, pet foods, etc. The important purpose of this review is to identify the commercial use of *K. alvarezii* in various industries such as food, pharmaceuticals, cosmetics, fuel, probiotic supplements, bio-medical etc. *Kappaphycus alvarezii*, which is already used in food industries, has been researched for various human diseases such as cancer, obesity, viral infections, metabolic syndrome, etc. The extract of this seaweed is utilized for making pure crystalline magnetite, which is used for drug delivery in medical applications. The wastage of this seaweed is used for producing bioethanol (biofuel) to run vehicles replacing land-based fuels.

Keywords: marine algae; carrageenan; *K. alvarezii*; food supplement; pharmaceutical.

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Conflicts of Interest

The authors declare no conflict of interest.