





Evaluation of Different Seaweed Species (Rhodophyte) as a Source of Agar

Dibaei M.M.^{1,2}; Tavakoli O.^{1,2}*; Barzad M.S.^{1,2}

- 1-School of Chemical Engineering, College of Engineering, University of Tehran, Tehran, Iran
- 2- Development Department, Iranian National Algae Culture Collection (INACC), Tehran, Iran
- *Corresponding autor's Email: otavakoli@ut.ac.ir

Abstract

Agar is a high value biopolymer extracted from the cell wall of certain seaweed species, which has been commercially exploited for its many applications in food, cosmetic, pharmaceutical, biomedical and biotechnology industries. The annual volume growth rate in agar production has been 2.5% per year from 1999 to 2009. Despite the seaweed's availability, a few comprehensive studies have been conducted on the comparison of extraction method, yield and physical properties of polysaccharide extracted from different algae species. In this review, the gaps in our current knowledge on the yield and gel strength differences between agars extracted from a variety of red seaweeds are discussed.

Keywords: Agar, seaweed, polysaccharide, algae, gel strength