
Production of enriched protein extracts after High-Pressure Homogenization from cultivated *Ulva* spp. (Chlorophyta, Ulvales)

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Résumé

Despite major efforts to guarantee access to food supplies for as many people as possible, global hunger is still increasing. Nowadays, in the context of food sustainability to ensure food safety and security, the search for innovative foods is crucial. *Ulva* spp (Chlorophyta, Ulvales) (known as Ao-nori or sea lettuce) which are often used as sea vegetables, have protein contents that vary from 9 to 32% of the dry weight. In Asian countries, *Ulva* is popularly consumed as a foodstuff or can be used as an extract, for example, in health supplements. PROMALG-Health (ANR-23-DIVP-0005) project proposes new sources of protein-rich raw materials from different species of cultivated macroalgae dedicated to food of seniors and long-stay patients in Brest hospital (France). In this study, an emerging non-thermal food processing technique, i.e. High-Pressure Homogenization (HPH), was applied as a pretreatment of dried *Ulva* sp. batches at 600, 800, 1000 Bar at 25°C during 5 cycles. The rheological and granulometric analysis of the different seaweed extracts were characterized. The effect of HPH on biochemical composition (protein and amino acids content, total sugars, ash, polyphenol content), biological activities were evaluated.

Mots-Clés: High Pressure Homogenizer, *Ulva*.sp, Protein, Eco, friendly, Functional ingredients

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