

## عنوان مقاله:

Isolation and characterization of collagen from a renewable marine resource

## محل انتشار:

پنجمین کنفرانس علوم و مهندسی جداسازی (سال: 1401)

تعداد صفحات اصل مقاله: 6

## نویسندگان:

Elham Hajiani, - *Department of Chemical Engineering, Faculty of Petroleum, Gas, and Petrochemical Engineering, Persian Gulf University, Bushehr, Iran*

Shahriar Osfouri - *Department of Chemical Engineering, Faculty of Petroleum, Gas, and Petrochemical Engineering, Persian Gulf University, Bushehr, Iran*

## خلاصه مقاله:

The protein collagen is a major component of connective tissue and has many medical and non-medical applications. The increase in world population and the need for protein has led to a specific focus on seafood. On the other hand, the jellyfish is a rich source of collagen. Therefore, collagen extraction from jellyfish has attracted the attention of many researchers. This study aimed to extract and purify collagen from the jellyfish *Catostylus mosaicus*. The protein content and collagen type were evaluated using a spectrophotometer and electrophoresis, respectively. Also, the denaturation temperature of extracted collagen was measured using a viscometer. The results showed pepsin-soluble collagen extracted from the jellyfish's umbrella consists of  $\alpha$  chains and  $\beta$  dimer. The yield of pepsin-soluble collagen extraction from jellyfish umbrella based on dry weight is ۱۴.۵۸%. Also, the results showed that the denaturation temperature of collagen extracted is about ۲۸. The results suggest that this jellyfish species can potentially be used as a renewable marine source of collagen instead of other sources of collagen.

## کلمات کلیدی:

Extraction, Collagen, Jellyfish, Biocompatibility, Denaturation temperature

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1493219>

