

عنوان مقاله:

Increase of casein hydrophobicity and its effect on surface activity

محل انتشار:

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تعداد صفحات اصل مقاله: 1

نویسندگان:

M Hajizadeh - *Institute of Biochemistry and Biophysics (IBB), the University of Tehran, Tehran, Iran*

M Salami - *Department of Food Science, Engineering and Technology, College of Agriculture and natural Resources, University of Tehran, Karaj Campus, Karaj, Iran*

Sh Momen - *Department of Food Science, Engineering and Technology, College of Agriculture and natural Resources, University of Tehran, Karaj Campus, Karaj, Iran*

A.A Moosavi-Movahedi - *Institute of Biochemistry and Biophysics (IBB), the University of Tehran, Tehran, Iran- UNESCO Chair on Interdisciplinary Research in Diabetes, University of Tehran, Tehran, Iran*

خلاصه مقاله:

The major part of the proteins in the milk of the cow and the camel are caseins. Caseins are the most important group of milk phosphoryl proteins, and their relative proportions in most mammals are generally higher than serum milk proteins. Structural indicators of caseins are open and flexible buildings. Their three-dimensional structure varies in terms of temperature, pH and environmental conditions. In fact, their structure results in foaming properties, high resistance to heat and formation of gel-like networks. A great attempt has been made to define the hydrophobicity of proteins due to the importance of hydrophobic interactions for their stability, compatibility and performance. However, effective hydrophobicity, that is, the actual surface hydrophobicity, should be more important in justifying the function of the protein. A lot of hydrophobic groups would be exposed at the molecular surface as protein heating proceeds. In this work we attempt to report the physical parameters relating to interfacial tension and emulsifying activity of beta-casein. There is good correlation between emulsifying activity and interfacial tension for casein. The more hydrophobicity relates to the decrease of interfacial tension and increase the activity of emulsion for beta casein.

کلمات کلیدی:

Effective hydrophobicity; Fluorescence probe; Surface activity, Casein

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