Changes in protein storage modulus

Actually, the storage modulus drops at the miscible section, however the high elasticity nearby the mixing - demixing temperature causes a sudden change in the storage modulus [12], [43]. Accordingly, the rheological measurements are accurate and applicable to characterize the phase separation and morphology of polymer products.

The storage modulus G ? from the data and the SGR model match each other well even up to o / G 0 ~ 1 where we cannot expect good agreement. This promising behavior also gives us the interpretation that mechanistically the cytoskeleton possesses a linear log-log relaxation-time spectrum and further that for the storage modulus the cytoskeleton is well modeled by the ...

Molecular transitions were correlated with conformational and protein morphological changes. Generally, the storage and loss modulus of the dough showed a highly similar degree of correlation with the micro-indicators (Fig. 6 a). The G? and G? were positively correlated with protein width, branching rate, and hydrogen bonds interaction ...

The rheological results showed no changes in the storage modulus (G"), loss modulus (G?), or viscosity values. Increasing the rennet amount and storage time led to a significant (p < 0.05) decrease in the foaming ability and foaming stability and a significant (p < 0.05) increase in the oil emulsifying activity and emulsion stability of ...

The storage modulus G ? and the loss modulus G ? at a selected frequency were plotted against the cross-linking density for P(NIPAM-BIS) and P(NIPAM-PEGDA) hydrogels (Fig. 5) revealing the relative large value of the storage modulus G ? compared to the loss modulus G ?, which is characteristic for all investigated hydrogels at both ...

This study examined the changes occurring in a model protein bar during storage for 50 ... The two-phase nature of the available lysine reactions and the negligible changes to protein molecular weights in SDS-PAGE were not consistent with the continuous increases in the fracture stress, fracture area, and modulus of deformability values of ...

Upon removal from storage, the fold changes in swelling ratio (Q M), storage modulus (G"), microsphere diameter, structural integrity and degradation rate inside the hydrogel microspheres were evaluated. We focused on both extended and short-term storage to cover the wide range of potential applications that could require immediate use, such as ...

The storage modulus (G ... To make a more objective comparison of the changes related to the protein secondary structure, a quantitative estimation was made by deconvolving and fitting the amide I bands (Liu,

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Gao, Ren, & Zhao, 2014).

The sample was allowed to stand for 3 min before the test. Storage modulus (G?), loss modulus (G?), and tand (G?/G?) were recorded at a constant strain amplitude of 0.5 %and a frequency range of 0.1 to 100 Hz under the oscillatory frequency sweep pattern. ... Changes in protein secondary structure during gluten deformation studied by ...

Melt down scores decreased significantly after five weeks of storage in both the high protein and control ice cream samples (Fig. 7 d). The panellists observed higher melting rate of ice cream as the storage proceeded. Changes in melting rates during storage were non-significant between control and high protein samples.

The purpose of this work was to establish ultrasonic storage modulus (G?) as a novel parameter for characterizing protein-protein interactions (PPI) in high concentration protein solutions. Using an indigenously developed ultrasonic ...

We began by characterizing the change in protein diffusion in condensates as a function of their age t w (defined as time after forma-tion of droplets), using fluorescence recovery ... using active microrheology (26). The storage modulus G? characterizes the elastic response of the droplets, and the loss modulus G?? char-acterizes the ...

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