Dynamic rheological storage modulus

An extensive examination of the first normal stress difference and linear viscoelastic properties of xanthan gum solutions has been conducted in relation to molecular theories in the ...

Specifically, we include detailed discussion on the correlation between the rheological characteristics of hydrogels and their possible applications. Different rheological tests such as time, temperature and ...

Dynamic rheological parameters: storage modulus (G?) and loss modulus (G?) of the control dough compared with the dough fortified with different percentages of OP as a function of frequency.

The dynamic rheological properties, such as storage modulus (G "), loss modulus (G ""), and loss factor (tan ?), were determined for starches. Starch suspension of 15% (w/w) concentration was loaded ...

Finally, Dorishety et al. used rheological tests to compare the viscoelastic properties of given hydrogels to biological tissues; specifically, they concluded the storage modulus of regenerated silk fibroin ...

Characterizing the dynamic rheological properties of yam starch can thus give an insight into its potential utilization and the scope of its industrial utilization, thus adding value to yam.

In this paper, the effects of four different temperatures (5, 25, 37 and 50 °C) on the physical stability and the dynamic and steady-state shear rheological properties of sunflower oil-in ...

The changes in material properties (e.g. modulus) between solid-like and liquid-like behaviour are of several orders of magnitude. Therefore, describing rheological behaviour from the ...

Steady shear and dynamic oscillatory shear tests were performed with a rheometer. The viscosity (?) of the resin matrix, the storage shear modulus (G ?), loss modulus (G ?), complex ...

The study employs a dynamic mechanical analyzer to investigate the frequency-dependent viscoelastic properties of epoxy composites reinforced with spherical particles and milled ...

A time sweep rheometry test was introduced to study polyethylene degradation through investigating its rheological behavior. Rheometry in the presence of air led to faster and more severe ...

It is worth to note there that the storage and loss modulus measured by commercial rheometer is the first harmonic modulus. In this paper, the applied coil current and CIP weight fraction ...

The typical gelation behavior of agar sols is shown in Fig. 1. The dynamic storage modulus, G ?, and the

dynamic viscous modulus, G ?, of a 2 wt% agar sol are plotted against time on ...

Download scientific diagram | Dynamic rheology: a storage modulus, b loss modulus, c complex viscosity as a function of frequency for LDPE/PLA blends (T = 175 °C) from publication: Viscosity and ...

The presented overview of nonlinear rheological measures found in the literature has resulted in a series of definitions for generalized storage and loss moduli, each of which is equivalent to the ...

The model can link the molecular-scale properties with bulk mechanics for dynamically associating polymer networks, which can be used as self-healing materials. Determining frequency ...

A total of 16 MRE samples are analyzed via amplitude, frequency, and magnetic sweep tests to elucidate their rheological behavior. The study also elucidates the Payne effect, characterized ...

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