New colloids as fat substitutes

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Natural polysaccharides have been widely investigated in recent years in relation to their physicochemical characteristics and applications. Some of its properties are biodegradability, abundance in nature and versatility of applications in engineering, biotechnology, medicine and food because they are generally nontoxic. Sterculia genus trees are known for its acidic polysaccharides with high solution viscosity and gelation characteristics. The Sterculia striata is a species native to most Brazilian regions and has been compared with other polysaccharides such as guar gum which has a multitude of applications in the food industry. The cashew gum is a hetero polysaccharide of exudate species Anacardium occidentale L., and has characteristics similar to those of Arabic gum, representing a potential substituent to various gums used in food industry. The majority of the gelatins produced by the industries are extracted from cattle hides, beef bones, and pork skin. However, by socio cultural issues and frequent occurrence of diseases such as Bovine Spongiform Encephalopathy, there is a growing interest in developing alternative sources of raw materials with good physical properties. Considering that Brazil is one of the largest of poultry meat in the world as a result generating large amount of byproducts rich in collagen and also that the texture is one of the most important commercial criteria used to evaluate the quality of a gelatin. The rheological characterization of the developed products demonstrates the features of their behavior determining the relationship between the structure and interactions of the various ingredients in foods and the final rheological properties of the gel.

Biography

Suzana Caetano da Silva Lannes is an Associate Professor at Pharmaceutical Sciences School of University of Sao Paulo. She is President of Brazilian Society of Food Science and Technology, and Vice President of Brazilian Association of Rheology. She has published papers in reputed journals, book chapters, and has been serving as Editor in Chief of Food Science and Technology-CTA Journal. She has developed research works in the Food Science and Technology area, on the following subjects: Rheology, physics of foods, development of special and nutritional food formulations and study of fat foods (emulsion, chocolate products, cupuassu, mayonnaise, ice cream and bakery).