**Phase behaviour of mixed sodium alginate/sodium caseinate as affected by sucrose**

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**Abstract:**

Binary and ternary mixtures of proteins-polysaccharides are usually used in food formulations to improve the texture, prevent phase separation or to impart desirable mouthfeel. It is, therefore, crucial to have a sound knowledge of possible interactions taking place between biopolymers as they are system specific and readily influenced by various physicochemical parameters and process conditions. This study was aimed at investigating the equilibrium phase behavior and flow properties of aqueous solution containing sodium alginate/sodium caseinate in the presence of sucrose. Phase diagrams revealed that both biopolymers were incompatible in a wide range of concentrations. Nevertheless, sucrose addition changed the phase behavior of mixed polymers significantly and increased the miscibility region noticeably. Viscosity measurements also revealed that flow behavior of mixed systems was pseudoplastic at all concentrations and the behaviour changed from protein- to polysaccharide-controlled as the biopolymers ratio varied in the mixture.