**Interactions and stability of hydrocolloid – phenolic acid mixtures.**

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Phenolic acids are bioactive molecules found in abundance in nature and especially in cereals, fruits, vegetables, oil seeds, and herbs. Their beneficial role in human health is well studied however their usage as ingredients or food constituents in the food industry is restricted because of their astringent action. Polysaccharides such as xanthan gum, apart from their usage as texture modifiers and stabilizers are gaining more interest as potential astringency reducers.

In the present work, the potential of two major phenolic acids, gallic and caffeic acid, mixtures with xanthan gum, were studied in different ratios and pH values, as to simulate the transit from mouth to stomach and the ingestion of acidic foods. The collected data of phase behavior, colloidal properties, and rheology are presented and discussed aiming to set a framework for understanding the bioavailability of polyphenols in the presence of carbohydrates and the aspects of the physicochemical basis of astringency.