**Protein concentrates form okra: Isolation and characterisation**

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A recent major trend in the food industry is the preparation of high-protein beverages and other high-protein soft foods. Particular importance is paid on the combination of high protein with desirable rheological properties. Most of the protein concentrates used by the industry so far are animal-derived, originating from meat, milk, or eggs. However, recent nutritional trends towards non-animal sources necessitate the transition towards high-concentration proteins from plant sources.

The fruits of okra (Abelmoschus esculentus) are well-known sources of culinary thickeners. This property is principally due to their polysaccharidic content. However, okra fruits are also rich in protein. This work aims in isolating and characterising high-protein fractions from okra, intended to be used as basis for high protein drinks and soft foods. This presentation discusses the selective extraction and isolation of protein from okra in terms of the proteins’ yield and composition. Their further concentration and polymeric packing properties are then discussed. Finally, their preliminary application in the formulation of model beverages is demonstrated, along with the shear and extensional rheologies of the extract and the products. A critical appraisal of the opportunities arising from this crops as source of protein concentrates with tunable rheology is discussed as conclusion.