Changes of physical properties during microwave processing of sagon

ABSTRACT

This study was designed to investigate the best and efficient method of processing sagon, a traditional snack food, using a microwave oven. Microwave cooking was conducted at three output powers of 90, 170 and 340 W. The effects of salt and different formulations on physical (moisture, water activity, color, surface morphology) as well as sensory properties of sagon were also investigated. Microwave heating reduced the time of cooking and/or drying compared with that of conventional way. The color of sagon was solely dependent on microwave output power and sugar content; the higher the output power the lesser is lightness and the greater is redness and yellowness, but texture and surface roughness showed better at medium microwave heating (170 W) confirmed by the micrographs. Microwave processing of sagon having high sugar content (60%) in the formulation at rather higher output power (340 W) resulted in most preferred sagon compared with that of conventional one available in the local market. Addition of salt bought about slightly higher reading of water activity and moisture content.

Keyword: Processing sagon; Microwave oven