

The physico-chemical and textural properties of aerated food products obtained based on selected animal proteins.

The study analyzes the effect of the addition of hydrocolloids on the physicochemical properties of wet foams and textural properties of dry foams (meringues). Egg albumen and whey protein isolate were used as the protein base and xanthan gum, arabic gum and sucrose as a stabilizer. The following parameters were analysed: density, surface tension, stability, yield stress, and rheological properties. Foams based on egg albumen and whey protein isolate are shear-thinning systems exhibiting yield stress. The size of the dispersed phase bubbles was determined using image analysis, on microscopic images of individual foams. In the case of foams with egg albumen there was a significant effect of xanthan gum addition on all of the analyzed parameters. The obtain of stable foam on the basis of WPI was possible using xanthan gum as the additive. Meringues obtained from WPI have features significantly different from those obtained on the basis of egg albumen.