ABSTRACT

Spherification is one of the molecular gastronomy technique commonly used to produce “false caviar”. There are several methods on spherification, one of them is reverse spherification. Reverse spherification technique is more versatile compared with basic technique. Reverse spherification was done by submerging a calcium-contained liquid in a sodium alginate bath. In this study, tomato juice was used as a model sample due to its high nutrition content. Parameters tested in this study was weight loss, sphericity, pH, brix, color, texture, and sensorial properties of tomato juice spheres. Tomato juice spheres were produced with different concentration of calcium lactate (1% and 5%) and stored in different storage solution, water (CLW) and 5^{o-}Brix sugar solution (CLS). This research aims to produce tomato juice spheres from tomato juice using reverse spherification technique and to optimize the sphere formation as well as its attributes. Tomato juice spheres were stored in storage solution before being analyzed. Results show that sugar solution able to maintain physical and sensorial properties of tomato juice sphere produced better than water.

Keywords: Calcium lactate, molecular gastronomy, reverse spherification, sodium alginate, tomato juice sphere.