World Academy of Science, Engineering and Technology International Journal of Mathematical and Computational Sciences Vol:14, No:12, 2020

Study on Ratio of Binder Compounds in Thai Northern Style Sausages

Authors: Wipharat Saimo, Benjawan Thumthanaruk, Panida Banjongsinsiri, Nowwapan Noojuy

Abstract : Thai northern style sausage (sai-ou) is originally cuisine made of chili paste, pork, and lard. It always serves with curry paste, vegetable, and rice. The meat and lard ingredients used can be substituted by Shiitake mushroom (Lentinus edodes) and King oyster (Pleurotus eryngii) mushroom (50:50 w/w) which is suitable for all people, especially vegetarians. However, the texture of mushroom type sai-ou had no homogenous texture due to no adhesiveness property of mushroom. Therefore, this research aimed to study the ratio of hydrocolloids (konjac flour (0-100%), konjac gel (0-100%) and Citri-fi®100 FG (0-2%)) on the physicochemical properties mushroom type sai-ou. The mixture design was applied by using Minitab 16 software. Nine formula were designed for the test. The values of moisture content and water activity of nine formula were ranged from 66.25-72.17% and 0.96-0.97. The pH values were 5.44-5.89. The optimal ratio of konjac flour, konjac gel and Citri-fi®100 FG (74.75:24.75:0.5 (w/w)) yielded the highest texture profiles (hardness, springiness, cohesiveness, gumminess and chewiness) as well as color parameters (L*, a* and b*). Sensory results showed had higher acceptability scores in term of overall liking with the level of 'like moderately' (5.9 on 7 pointed scale). The mushroom type sai-ou sausage could be an alternative food for health-conscious consumers.

Keywords: Citri-fi® 100 FG, konjac flour, konjac gel, Thai northern style sausages

Conference Title: ICSRD 2020: International Conference on Scientific Research and Development

Conference Location : Chicago, United States **Conference Dates :** December 12-13, 2020