

## Optimizing the Nanoliposome of Nisin Produced by Sonication

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**Abstract :** Nanotechnology and nanoscience and related fields in this area, will impact on daily human life in the not too distant future. The basic materials of liposomes are lipids. Lipids that can be used to build liposomes can be provided from variety of sources. In this research, lecithin and cholesterol were used to prepare liposomes. Probe sonicator was used to minimize the particles of liposome and make nanoliposomes. Encapsulation efficiency were analyzed with pyrogallol red indicator and autoanalyzer equipment. The smallest particle size was 220 nanometer( 100 mg lecithin, 50 mg cholestrol, 12 min and amplitude of 90%). The highest encapsulation efficiency was 13.5%( 120 mg lecithin,45 mg cholestrol, 12 min and ampiltude of 92%).

**Keywords :** optimizing, nanoliposome, nisin, cheese

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