

## **ABSTRACT**

### ***EFFECT OF MYRISTIC ACID COMPOSITION ON POTENTIAL ZETA OF NANOSTRUCTURED LIPID CARRIERS (NLC) KOENZIM Q10***

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*Coenzyme Q10 is a natural compound found in the mitochondrial inner membrane and is fat soluble with a log P of 19.4 so that coenzyme Q10 has poor penetration in penetrating the skin, this is why Coenzyme Q10 needs to be formulated to improve penetration that occurs in the skin. This study aims to determine the effect of variations in Solid Lipids (Myristic Acid) on the Zeta Potential Value of Nanostructured Lipid Carrier (NLC) preparations. Coenzyme Q10 was formulated using solid lipid (Myristic Acid) which had different concentrations of 7%, 8% and 9%. This study was made with 3 formulas and each was replicated 3 times. Evaluation of physical characteristics was carried out after 24 hours after the preparation was completed, observations were made including organoleptic (shape, color and phase formed) then potential Zeta test was carried out. The research data was statistically processed using the One Way ANOVA test. The results showed that the concentration of solid lipids had an effect on the potential zeta value that the p-value was significant < 0.05, which means that each composition of the Nanostructured Lipid Carrier (NLC) preparation was different and significant.*

**Keywords:** *Coenzyme Q10, Myristic Acid, zeta potential, NLC.*