ABSTRACT

M. Rio Suprayogi, NIM: 1534027, 2019, M. Rio Suprayogi, NIM: 1534027, 2019, The difference sensitivity of nitric oxide analysis by comparing the addition of Na_2EDTA and without Na_2EDTA using Brusin sulfate and UV-Vis spectrophotometry method. Bachelor thesis of DIV Medical Analysis Study Program, Faculty of Medical Sciences of the Catholic University of Musi Charitas Palembang.

Background: Nitrate is a part of the nitrogen cycle. Ion nitrate forms a stable form by combining nitrogen and oxygen. The increase of nitrate level in the environment can be made by the inclusion of domestic and agricultural waste which contains ion of nitrates. The maximum level of nitrate level in water is regulated as 10 mg/L. The nitrate analysis test can be done using the Brusin sulfate method by adding Na_2EDTA and without adding Na_2EDTA. This present study aims to determine the different sensitivity of nitrate analysis by adding Na_2EDTA and without adding Na_2EDTA using by UV-Vis spectrophotometers.

Method: This research uses the method of nitrate analysis by comparing the nitrate level treated by adding and no adding Na_2EDTA. The detailed procedure refers to the Indonesian national standard 06-2480-1991. The research belongs to the type of True experiment research type with the design of study using a control group (Posttest Only Control Group Design)

Result: The result showed that the sample treated by adding no Na_2EDTA obtained consecutive results of mean 2,3628 ppm and the results of nitrate analysis by adding Na_2EDTA obtained consecutive value means of 6,9178 ppm.

Conclusion: Verification of data on the research obtained the value of Linearity, LOD and LOQ, % Recovery, and % RSD entered within the limits of the infidelity. From the research, the sensitivity of nitrate analysis is differentiated by adding and no adding Na_2EDTA on the well water samples.

Keywords: Nitrate Examination, EDTA, Verification Data