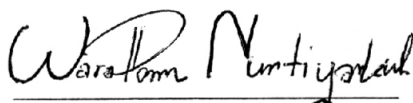
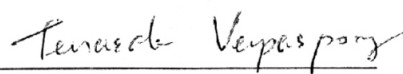


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Study on activity determination by using Liquid Scintillation Counter (LS counter) via
CIEMAT/NIST Method of radioactive standard, ^{14}C , were traced against ^3H . The
CIEMAT/NIST method has been widely used for radionuclide standardization. This method
consists of theoretical calculations to calculate counting efficiency of a ^{14}C and the tracer
 ^3H relative with in the interval of free parameter 1.05-1.80 and the experimental data from LS
counter. In addition, detailed analysis of the equations as a mathematical model were used to
compute the counting efficiency of radioactive standard ^{14}C and then calculated result of
radioactive standard ^{14}C activity obtained by using this model were compared with actual
activity so that we could obtain percentage error of absolute activity for radioactive standard ^{14}C
to be extremely small (0.04- 0.37%)


Student's signature

 26/ Oct. 1 2006
Thesis Advisor's signature