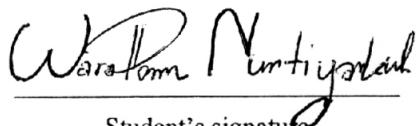
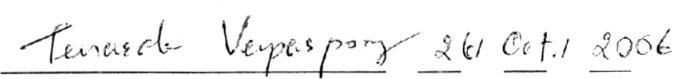


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Study on activity determination by using Liquid Scintillation Counter (LS counter) via CIEMAT/NIST Method of radioactive standard, ^{14}C , were traced against ^3H . The CIEMAT/NIST method has been widely used for radionuclide standardization. This 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



Thesis Advisor's signature

26 Oct. 2006