Thesis Title	A Measurement of Acid Deposition near the Industrial Areas by Surrogate Surface Method and Wet Bulk Collector
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Abstract

The purpose of this thesis was to conduct the amount of acid deposition in Thungkru district where the monitoring site was located near the urban and the industrial areas. The samples of acid deposition composed of rain water knew as wet deposition and the samples collected from the atmosphere knew as the dry deposition.The wet deposition samples were collected on daily basis using wet bulk collector and collected from April to September 2001. The dry deposition was collected from April to February 2001 using three different types of filters, namely teflon, nylon and cellulose. The filters were then placed on a flat plate and the samples were collected continuously for 7 days.

The results of wet deposition study show that the average values of pH and conductivity of the rainwater were 5.8. and 1.73 millesiement per meter, respectively. The average concentrations of cations were in the sequence of : $Ca^{2+} > NH_4^+ > Na^+ > Mg^{2+} > K^+$ at the values of 41.23, 36.52, 22.94, 16.40 and 15.56 microgram per liter .Those of anions were $Cl^- > SO_4^{2-} > NO_3^-$ at the values of 32.0, 30.94 and 24.08 microgram per liter ,respectively. The mole average ratio of NO_3^-/SO_4^{2-} was 0.76 indicating that sulphate in the atmosphere was higher than nitrate . This shows that the acid precursor in this study was from the industrial sources.

The result of dry deposition study show that the amount of dust deposition on cellulose filter gave the highest deposition at the value 77.3 gram per square meter per month. In case of sulphate and nitrate deposition, it found that the cellulose filter impregnated with 6% K_2CO_3 and 2% glycerine had the highest collection efficiency. The amounts of sulphate and nitrate deposition on cellulose filter were 816 and 220 milligram per square meter per month, respectively.