

Supannika Salao 2009: The Effects of Ozone Concentration on Vertical Distribution of Polycyclic Aromatic Hydrocarbons in Total Suspended Particulate in Urban Area. Master of Science (Environmental Science), Major Field: Environmental Science, College of Environment. Thesis Advisor: Assistant Professor Surat Bualeart, Ph.D. 170 pages.

The objective of the study is to investigate the effects of ozone concentrations on vertical distribution of Polycyclic Aromatic Hydrocarbons in total suspended particulate at three heights in an urban site which are Amphur Hatyai, Songkla province, Bangkok and Amphur Muang, Chiangmai province: at the above roughness length, the surface layer and the urban boundary layer, during sampling between december 2007–february 2008 . Concentrations of ozone highest mean total in the surface layer are related in photochemical reaction with radiation as an important factor and its concentration related inversely to concentrations of PAHs. Amphur Hatyai, Songkla province the total mean concentrations of particulate PAHs in the above roughness length, surface layer, and urban boundary layer were 0.147, 0.131 and 0.179 respectively, Bangkok the total mean concentrations of particulate PAHs in the above roughness length, surface layer, and urban boundary layer were 0.448, 0.306 and 0.484 respectively, Amphur Muang, Chiangmai province the total mean concentrations of particulate PAHs in the above roughness length, surface layer, and urban boundary layer were 0.797, 0.852 and 0.580 respectively. Furthermore, there are also other factors that influence the concentration of the PAHs in 3-level, for example, physical properties of PAHs by phodegradation reaction.

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Thesis Advisor's signature