Suwannapa Homchuen 2008: Adsorption of Phenol and its Derivatives in Solution by *Typha Angustifolia* Linn. and *Azadirachta indica* A. Juss Var. *Siamensis* Valeton. Master of Science (Environmental Science), Major Field: Environmental Science, College of Environment. Thesis Advisor: Associate Professor Nipon Tungkananuruk, Ph.D. 101 pages.

The remained phenol after its adsorptive extraction from *Typha Angustifolia* Linn. and *Azadirachta indica* A. Juss Var. *Siamensis* Valeton can be determined by spectrophotometrically at 510 nm as quinoneimine. The effects of pH (3-10), shaking time or digestion time, contact time, initial concentration of phenol (50-500 mg/L) and amount of adsorbent are reported. In addition, the adsorption process of *Typha Angustifolia* Linn. and *Azadirachta indica* A. Juss Var. *Siamensis* Valeton are conformed with Langmuir and Freundlich models respectively. The system has been applied to the determination of phenol and its derivatives in wastewater from paper industries.

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