

**Environmental dynamic behavior of organohalogen compounds in water and soil - interaction with humic substances**

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<http://unit.aist.go.jp/emtech/15adreme/index-j.html>

To determine the partition coefficient of hydrophobic organic pollutants (HOPs) into humic acids (HAs), the use of solid-phase microextraction (SPME) was examined. The aqueous solutions containing HA and organohalogen compounds (hexachlorobenzene or 1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin) were prepared and shaken for more than 12 hours. The free HOP species in each solution were then concentrated using the SPME and their concentrations ( $[HOP]_w$ ) were determined by GC-ECD. The linear relationships between the ratio of the HOP concentration without HA ( $[HOP]_o$ ) to  $[HOP]_w$  and the HA concentrations were observed, and the partition coefficients could be evaluated by the slope of the linear line.