

# **Analyses of PAHs (Polycyclic Aromatic Hydrocarbons) and Mutagenicity in Raw and Chlorinated Water**

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摘要.

## **Abstract**

Both raw water and chlorinated drinking water samples were collected from and the Liu-Du water treatment plant in northern Taiwan from October 1990 to April 1992. The polycyclic aromatic hydrocarbons (PAHs) and mutagenicity in these water samples were analyzed by GC/MS and Ames test. The Mutagenicity/DMSO (Dimethyl Sulfoxide) ratio in *S. typhimurium* TA98 and TA100 with or without S9 mixture increased, even higher than 2, following the sequence of unit process. It was observed that the mutagenicity with TA98 (S9+) was highly related to most of PAHs in the raw water; while the mutagenicity with TA98 (S9+) was only correlated with DbA and BghiPr in the treated water. It could be expected that the mutagenicity level was controlled by other predominant components after the raw water was treated, for example, the chlorination process.