〔Sci. Tot. Environ., **73**, 1 (1988)〕

Distribution of Silicones in Water, Sediment and Fish in Japanese Rivers.

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A new analytical method for assaying silicones in environmental samples is presented. The method utilizes petroleum ether for solvent extraction of the sample together with inductivity coupled plasma detection of the extracted silicones. The detection limit for silicones in the final methyl isobutyl ketone sample is 0.01ppm, and the method is applied to samples from various Japanese rivers to quantify silicones in severel environmental materials, Siicones are reported from river waters (up to 50ppb), river sediments (up to 6ppm), and extractable component of fish tissue (up to 0.9ppm).

〔Mutat. Res., **193**, 21 (1988)〕

DNA Repair Test of Disinfectants by Liquid Rec-assay.

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The DNA-damaging capacity and the mutagenicity of 6 disinfectants were studied by liquid rec-assay and Ames test. 5 disinfectants were found to be positive in DNA-damaging capacity while only one of them showed clear mutagenicity in the Ames test. Liquid rec-assay by direct incubation with S9 mix was the most sensitive method and gave the best correlaticn between the growth ratio (R 50) and the time lag, both of which compared Rec^+ and Rec^-. Liquid rec-assay may be useful for detecting the DNA-damaging capacity of chemicals with a strong killing effect.

〔Mutat. Res., **206**, 327 (1988)〕

Effects of medicinal plant extracts from Chinese herbal medicines on the mutagenic activity of benzo〔*a*〕pyrene.

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The effects of medicinal plants on the mutagenicity of benzo〔*a*〕pyrene were studied with *Salmonella typhimurium* tester strains. *Cinnamomi cortsx, Rhei rizoma, Scutellariae radix* and *Rehmanniae radix* were found to decrease the mutagenic activity of benzo〔*a*〕pyrene. *Atractylodis rhizoma* also reduced the mutagenicity of benzo〔*a*〕pyrene, but this was not certain, because it showed a killing effect. *Bupleuri rabix* and *Aurantii Nobilis percarpium* had an enhancing effect, but then neither of these extracts is itself mutagenic. These effects were classified into 5 types : (I) Decreasing effect, (II) Killing effect, (III) Enhancing effect, (IV) Enhancing and decreasing effect and (V) Inactive.