

## Analysis of alkylphenol in environmental water-2

When extrinsic endocrine disrupting chemical (“environmental hormones”) enter the body, they disrupt the normal actions of hormones, interfere with reproduction and cause malignant tumors to form. In this report, the results of analyzing lake water spiked with alkyl phenols such as nonyl phenol were shown. The samples were concentrated online and analyzed by reversed phase chromatography (Fig. 1).

**Keywords:** 1. alkyl phenol, 2. STD, lake water, 3. ODS, 4.FL, 5. Endocrine disrupting chemicals

### Conditions:

Pretreatment Column: CrestPak C18T-5P  
(4.6mm I.D. x 50mmL)  
Pretreatment Eluent: H<sub>2</sub>O  
Switching time: 6 to 88min  
Separation Column: CrestPak C18T-5  
(4.6mm I.D. x 250mmL)  
Eluent: A=CH<sub>3</sub>OH / H<sub>2</sub>O (75/25)  
B=CH<sub>3</sub>OH

Time(min)	0.0	85.0	85.1	100.0	100.1
A(%)	100	100	0	0	100
B(%)	0	0	100	100	0

1 cycle 120min

Flow rate: 1.0mL/min  
Column temperature: 40 degree celsius  
Wavelength: Ex 280nm, Em306nm, Gain x100  
Sample: Lake water + STD (1ppb), Lake water  
Injection volume: 5mL

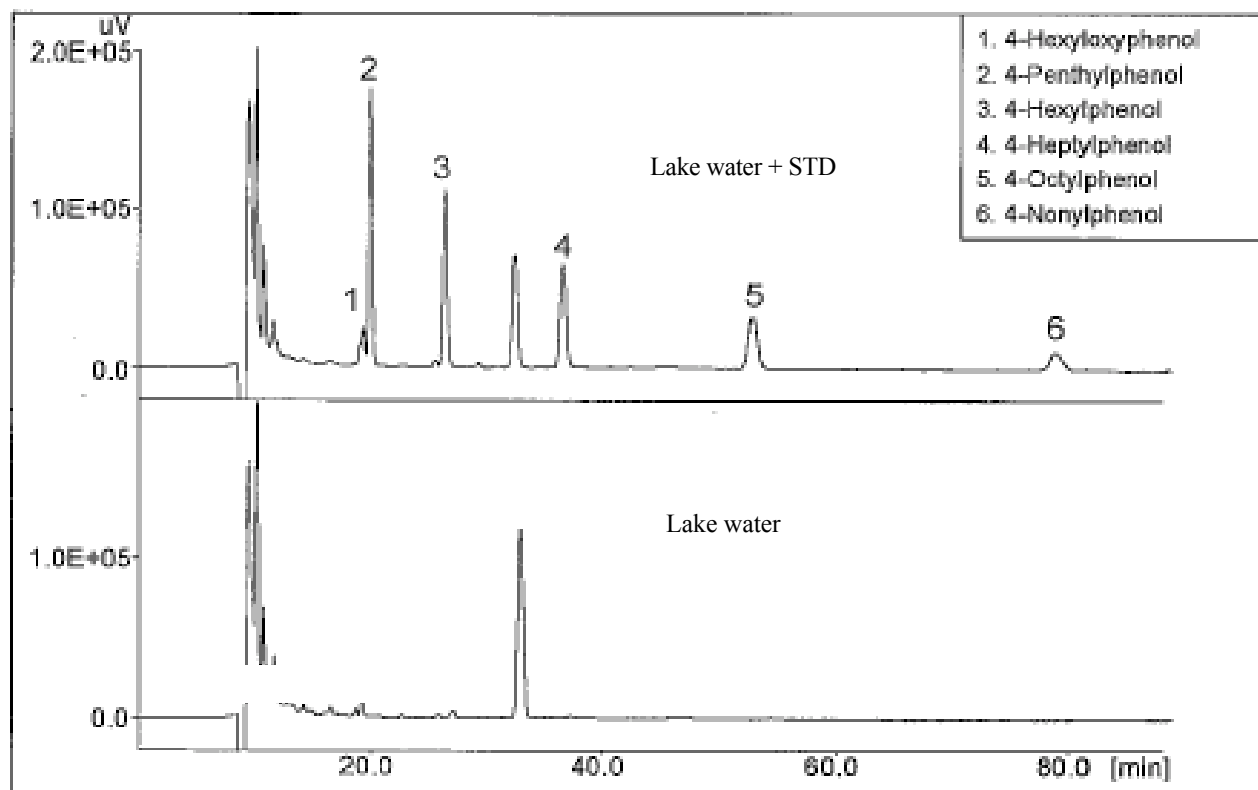


Fig. 1. Lake water chromatograms