

## Analysis of 18 N-methyl-carbamate pesticides with semi micro HPLC (1)

Simultaneous analysis of 18 methylcarbamate-type agricultural chemicals is possible using HPLC with a post column method using fluorescence detector. Here the use of semi-micro HPLC was demonstrated for this analysis.

In this report a high-pressure gradient system equipped with a dynamic mixer was used.

Fig. 1 shows the chromatograms of 18 standard samples at 10 ppb and 100ppb concentrations.

**Keywords:** 1.N-methyl0carbamate pesticides, 2.STD mixture, 3.CharbametePak, 4.FL, 5.semi micro HLC, post-column derivatization

### Conditions:

Column: CarbamatePak  
(2.1mm dia. x 150mmL)  
Column temperature: 40 degree celsius  
Eluent: A-H<sub>2</sub>O / B-CH<sub>3</sub>OH / C-THF

Time(min)	0	1.5	3	15	35	40	45	45.1
A(%)	88	88	90	85	70	65	65	88
B(%)	12	12	0	0	0	0	0	12
C(%)	0	0	10	15	30	35	35	0

Flow rate: 0.2ml/min  
Reaction Eluent-1: 50mM NaOH 0.1ml/min , 80 degree celsius  
Reaction Eluent-2: OPA\*) 0.1ml/min 40 degree celsius  
Wave length: Ex 339nm, Em 455nm  
Injection volume: 5μl

\*) Sodium Tetraborate buffer/OPA/Mercaptoethanol (1000/5/0.05)

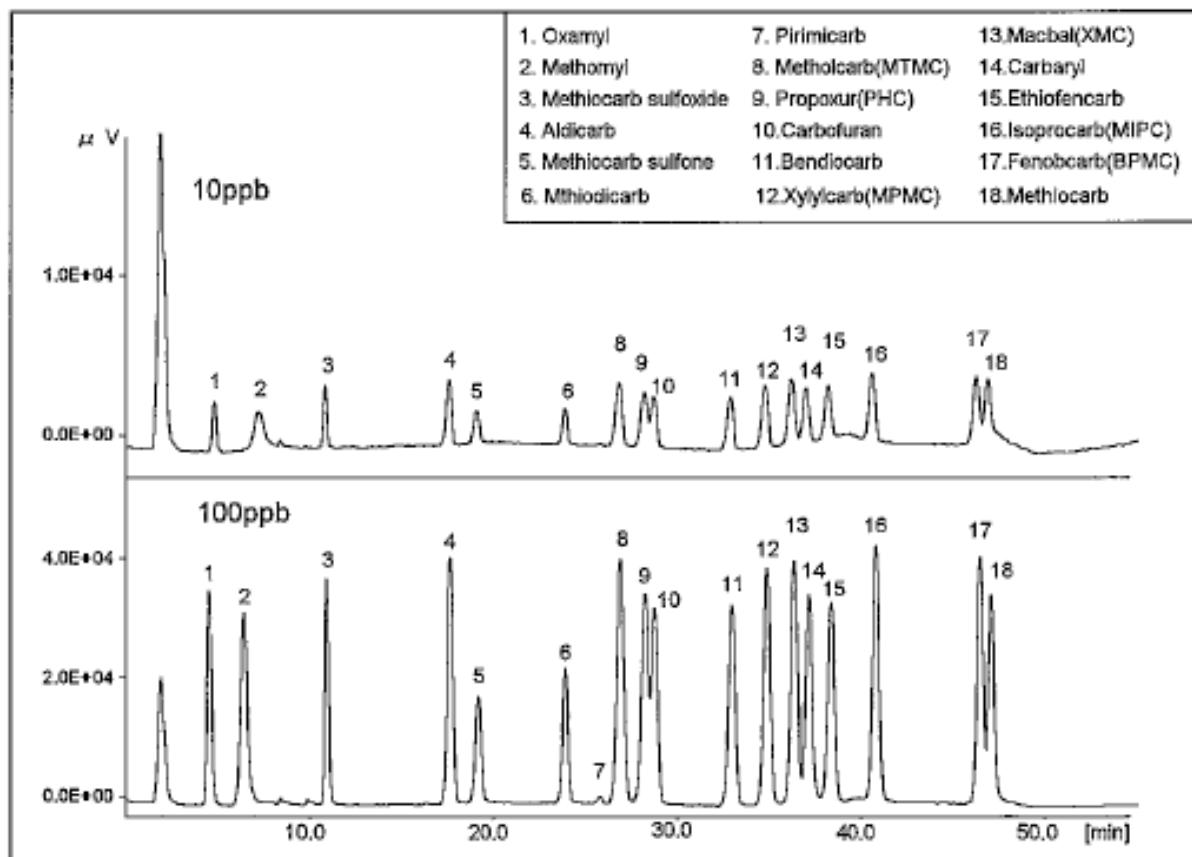


Fig. 1 Chromatograms of 18 n-methylcarbamate type agricultural chemicals