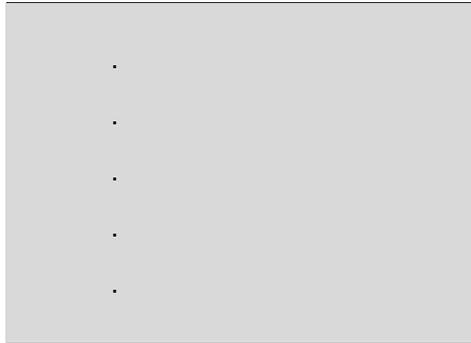


# BTEX

( )



.

1990 5  
10 .

1996 , ,

가 .  
(10<sup>-9</sup>) 가 ppb

( , 1998).

( , 1998; , 1998).

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1) 1999

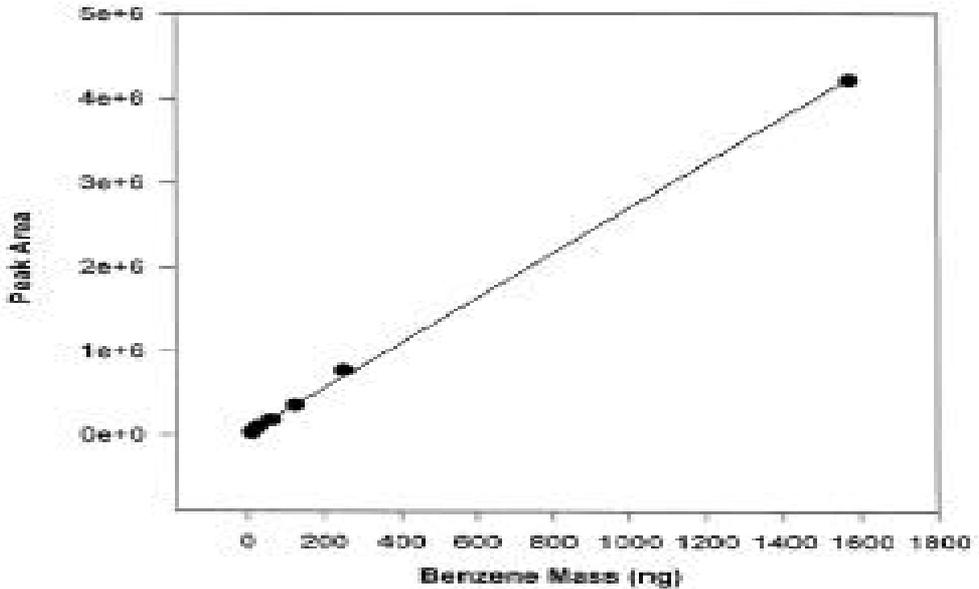
BTEX (Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene)

1997 11 , 1998 2 , 6 , 10  
 2~6 , 2~9 , 2  
 ( 1). 2~3 100 Ml/min  
 Carbotrap 가

BTEX

GC

. 20 1600 ng Benzene  
 ( 1).



< 1> Benzene Calibration Curve

## &lt; 1&gt; Survey Scheme

Survey	1	2	3	4
Area	Seoul, Ulsan, Taesan, Donghae	Ulsan, Taesan,	Seoul, Ulsan, Taesan, Donghae	Seoul, Ulsan, Taesan, Donghae
No. of Locations	7	14	24	27
Month/Year	Nov. 1997	Feb. 1998	Jun. 1998	Oct. 1998
Determined items	Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene			
Determination Method	Thermal Desorption GC/FID after Tenax/carbosieve S III trap preconcentration for 2~3 hrs by 100 Mℓ/min			

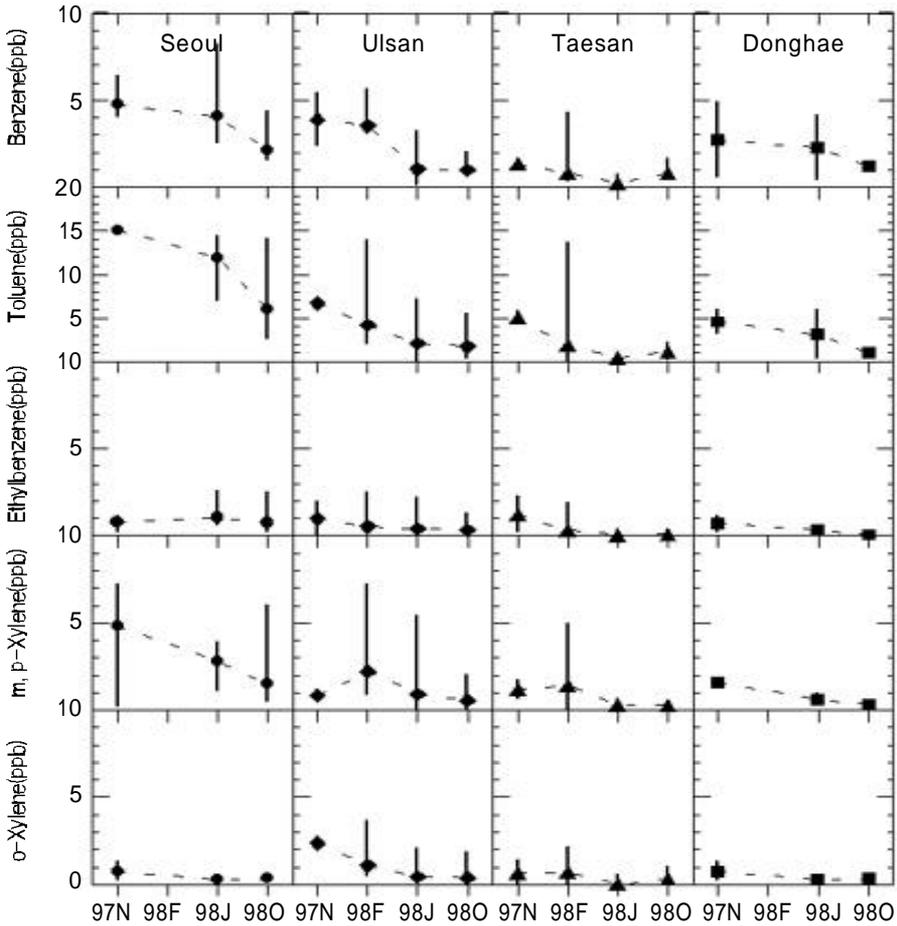
Benzene 1.5~8.2 ppb, 0.2~5.6 ppb,  
 trace~4.2 ppb, 0.4~4.8 ppb <sup>2)</sup>  
 , , , ( 1). 가 가  
 , 가  
 가  
 Toluene 가 2.7~15.3 ppb, 0.2~13.8 ppb,  
 0.1~13.5 ppb 0.4~5.9 ppb  
 BTEX 가 .Benzene 가  
 Toluene , , , ,  
 Ethylbenzene 0.3~2.5 ppb, 0.1~2.4 ppb,  
 trace~2.2 ppb, trace~1.9 ppb  
 3 ppb  
 m,p-Xylene 0.2~7.2 ppb, trace~7.2 ppb,

2) 가가



가 4 BTEX ( 2),

BTEX  
가  
4  
97 11 98 10 가 BTEX 가  
( 2).



< 2> The Seasonal variation of Atmospheric BTEX distribution in Seoul (filled circle), Ulsan (filled diamond), Taesan (filled triangle), and Donghae (filled square), respectively (X axis : Sampling Month, Y axis : Concentration in ppb)

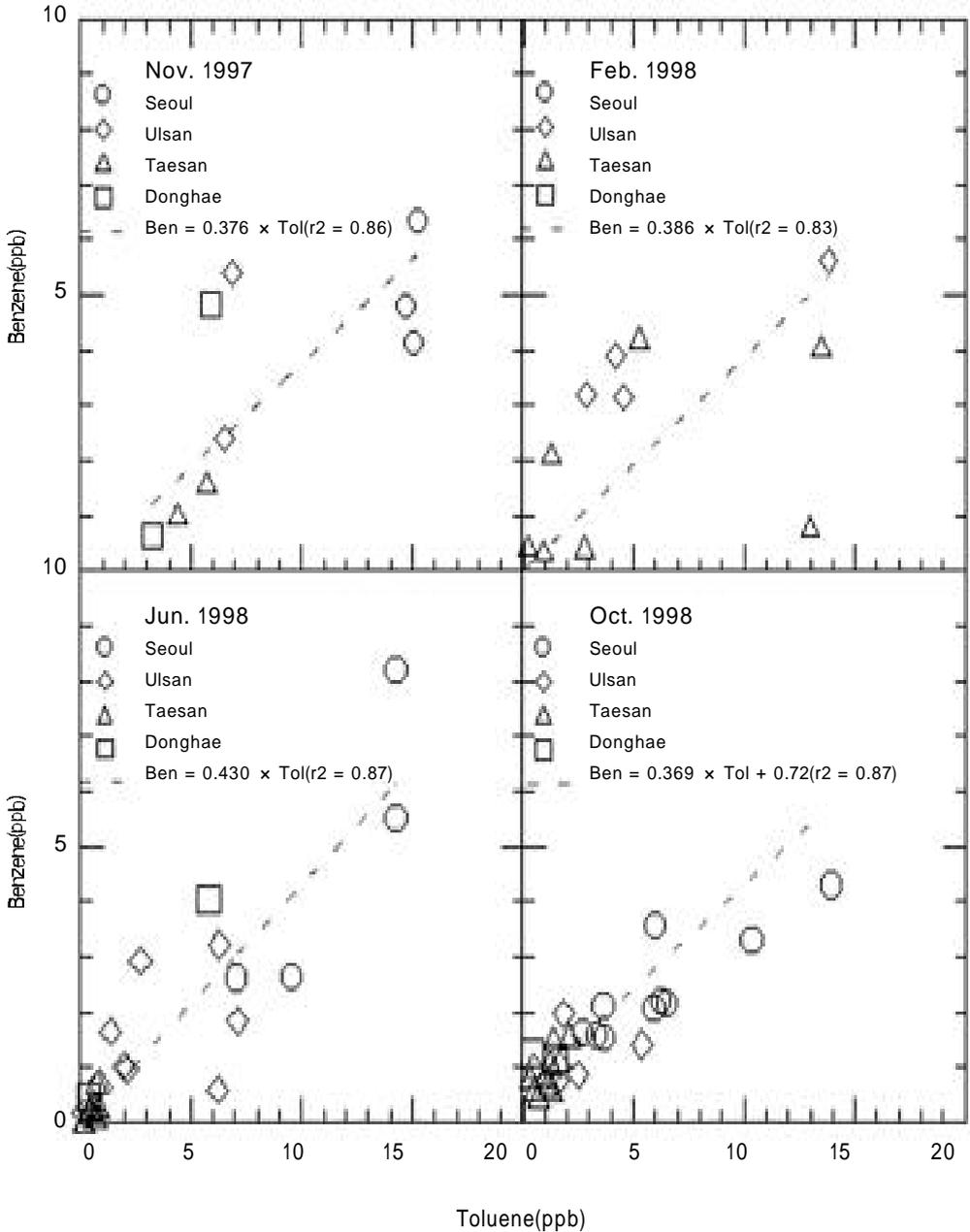
4 Benzene Toluene  
3

Benzene : Toluene ( 3) 가  
( $r^2$ )가 0.83~0.87

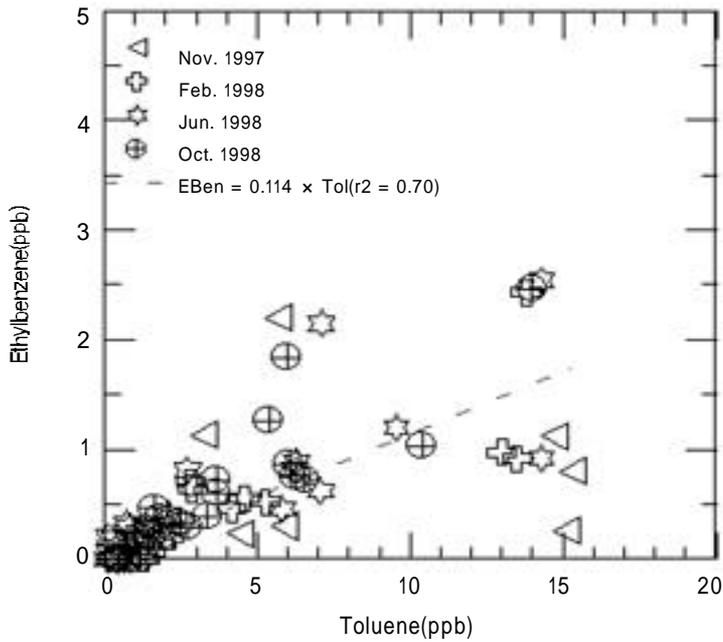
Benzene Toluene  
Benzene :  
Toluene 97 11 0.376, 98  
2 0.386, 98 6 0.430, 98 10 0.369  
( 3). Benzene  
Toluene Benzene Toluene

Benzene Toluene  
(Palmgren, 1996), Benzene Toluene  
0.27~0.36  
Benzene : Toluene 가 Benzene : Toluene  
Benzene Toluene  
가 Benzene  
Toluene 2  
Benzene

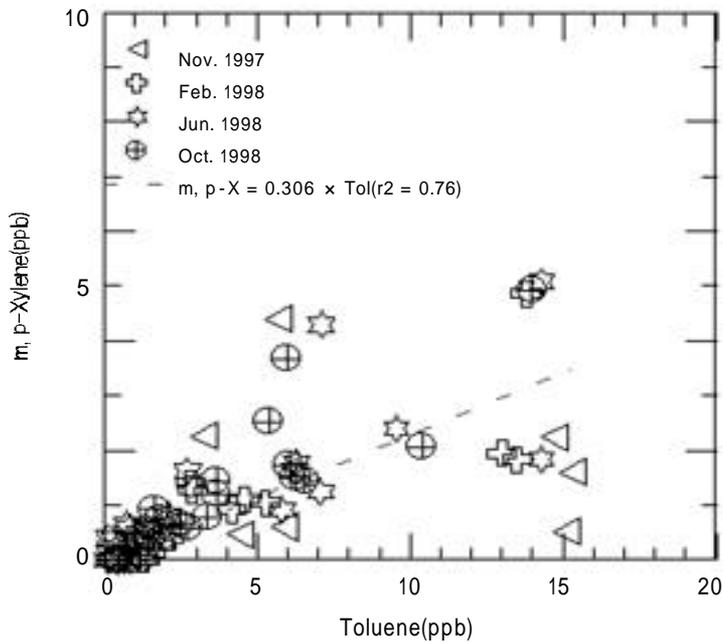
Toluene  
Benzene Ethylbenzene, m,p-Xylene, o-Xylene Toluene  
< 4>  
6 가  $r^2$   
0.7 0.83



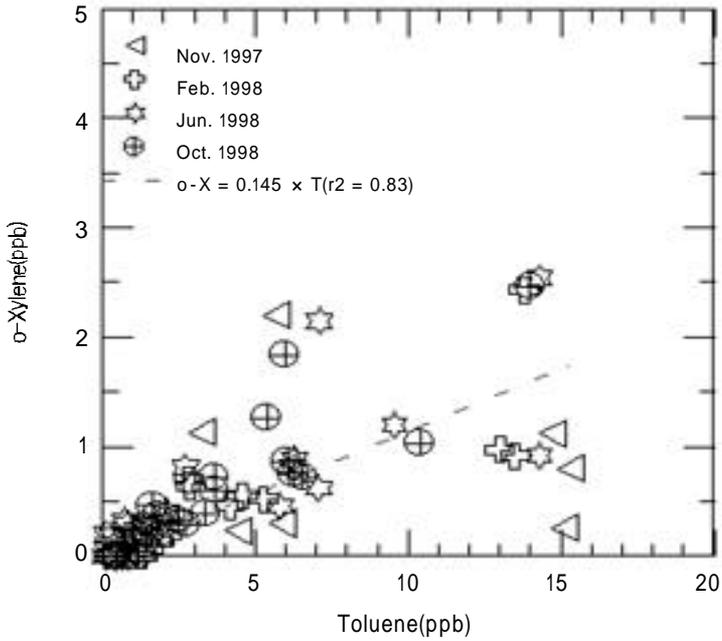
< 3> The Seasonal property-property diagram of Benzene vs Toluene ( $r^2$  : Correlation Coefficient, Dotted line : best fitted by least square method)



< 4> The property-property diagram of Ethylbenzene vs Toluene



< 5> The property-property diagram of m,p-Xylene vs Toluene



< 6> The property-property diagram of o-Xylene vs Toluene

Benzene, Toluene 가 Ethylbenzene, m,p-Xylene,  
o-Xylene .  
97 7 9,400 98  
6 7,000 15.6% ,  
Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene  
가 ( 2) 가 .  
가 가  
가 가

Benzene,

---

Toluene, Ethylbenzene, m,p-Xylene, o-Xylene

가 , , ,

Benzene, Ethylbenzene, m,p-Xylene,

o-Xylene

Toluene

가

BTEX

가

가

가

가



, 가

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