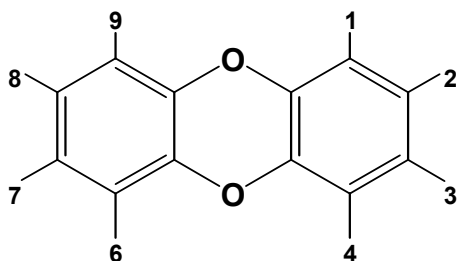


List of Appendices

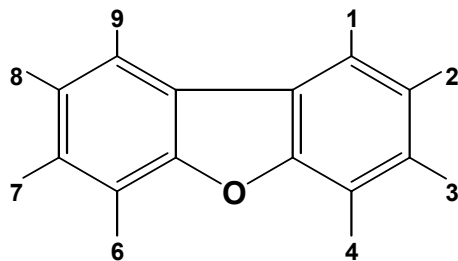
Appendix 1	Chemical Structures of Toxic Air Pollutants	1
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Appendix-1 Chemical Structures of Toxic Air Pollutants

A Dioxins

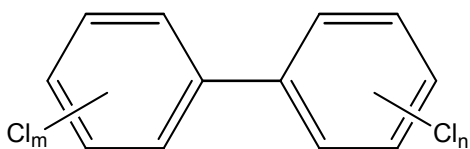


Dibenzodioxin
PCDD

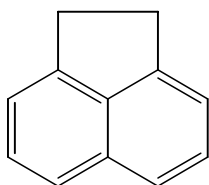


Dibenzofuran
PCDF

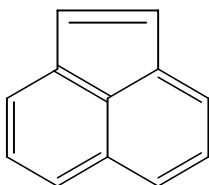
B. Polychlorinated Biphenyls (PCBs)



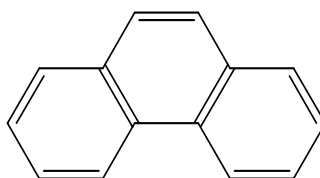
C. Chemical Structure of Typical PAHs



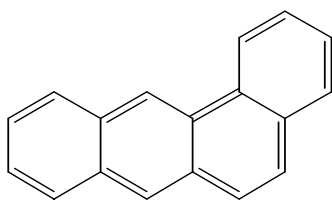
acenaphthene



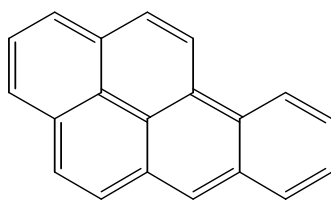
acenaphthylene



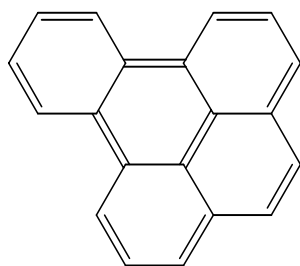
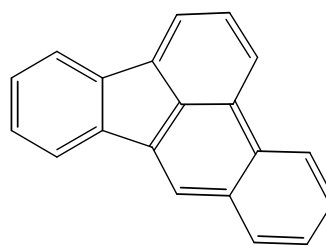
anthracene



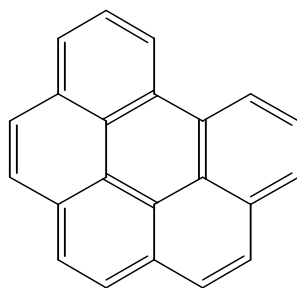
benzo[a]anthracene
benzo[b]fluoranthene



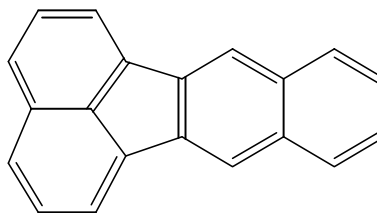
benzo[a]pyrene



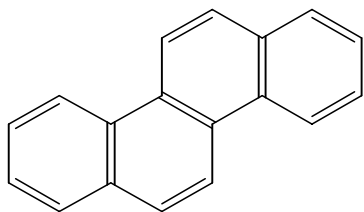
benzo[e]pyrene



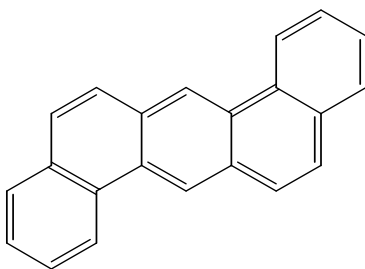
benzo[g,h,i]perylene



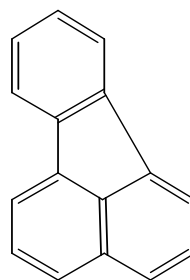
benzo[k]fluoranthene



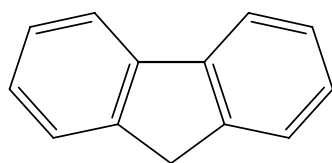
chrysene



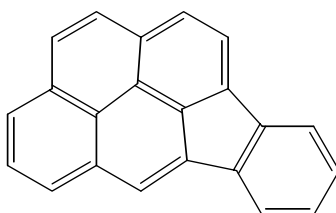
dibenz[a,h]anthracene



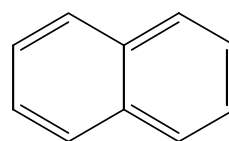
fluoranthene



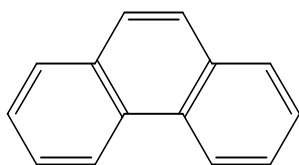
fluorine



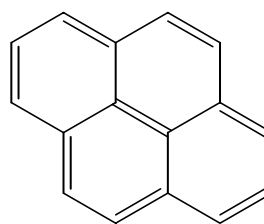
indeno[1,2,3-cd]pyrene



naphthalene

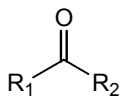


pyrene



phenanthrene

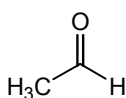
D. Carbonyls



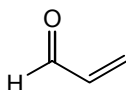
general structure of a carbonyl compound
R₁, R₂: H or an alkyl group



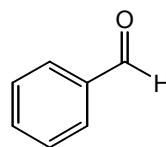
formaldehyde



acetaldehyde



acrolein

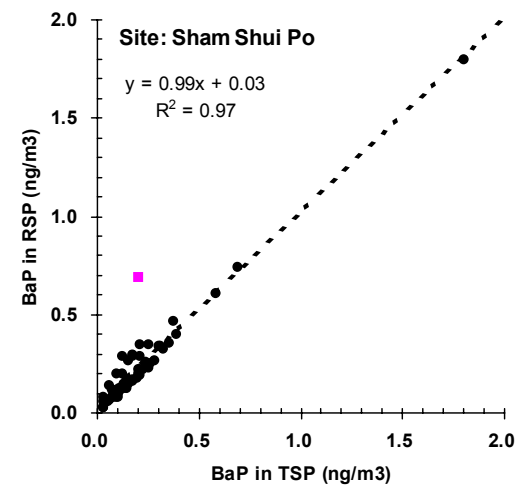
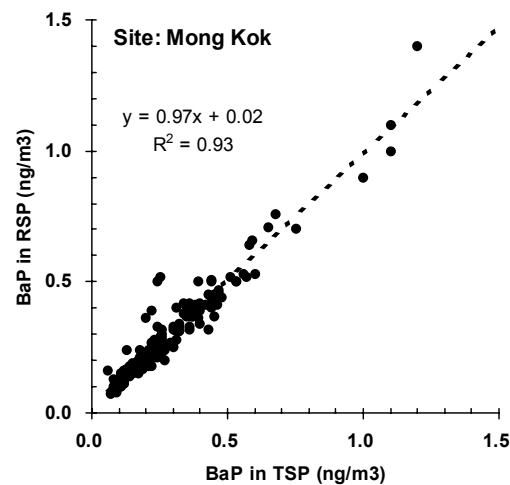
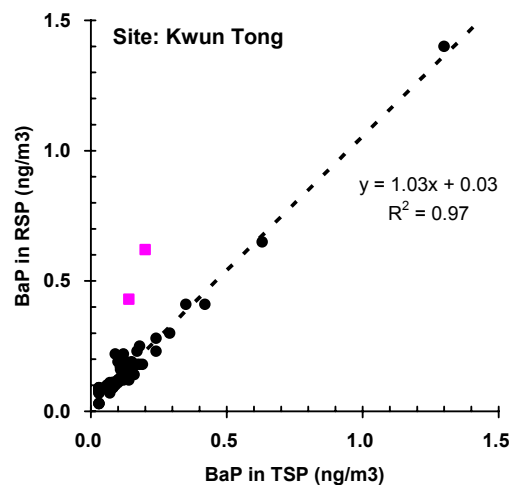
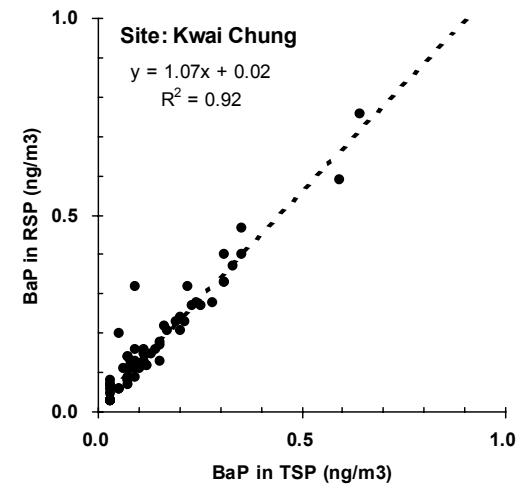
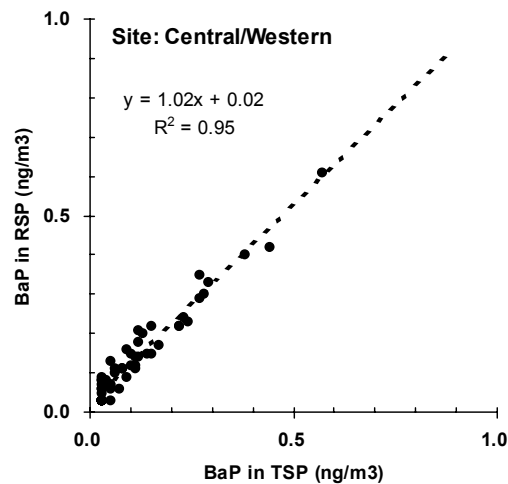
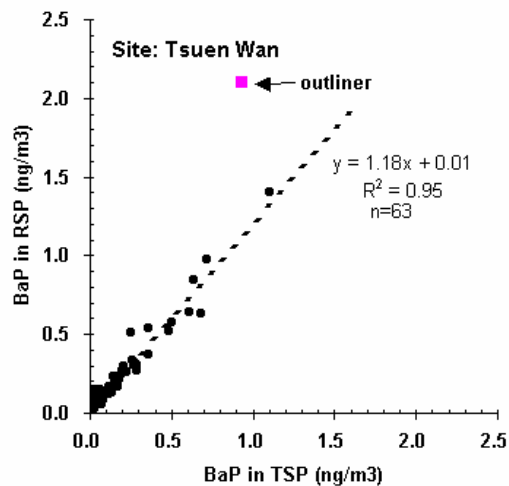


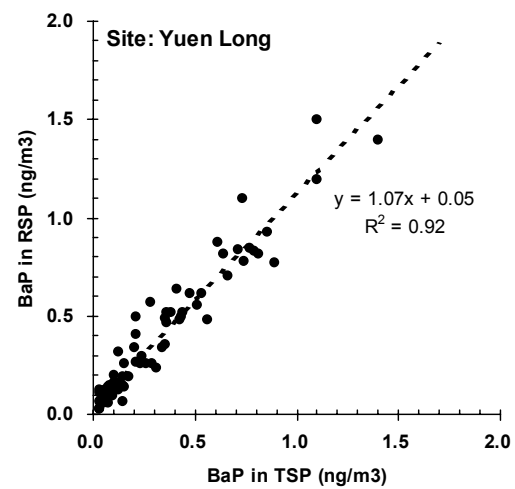
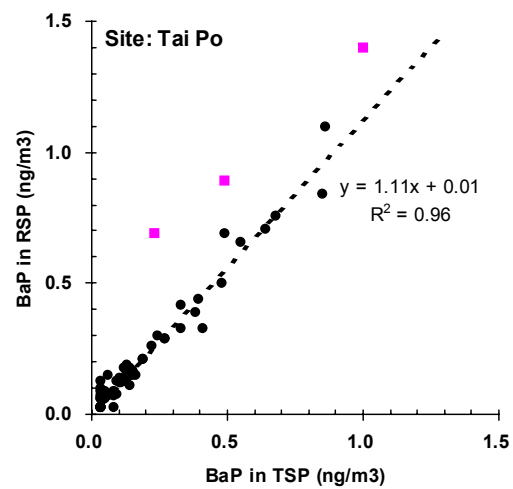
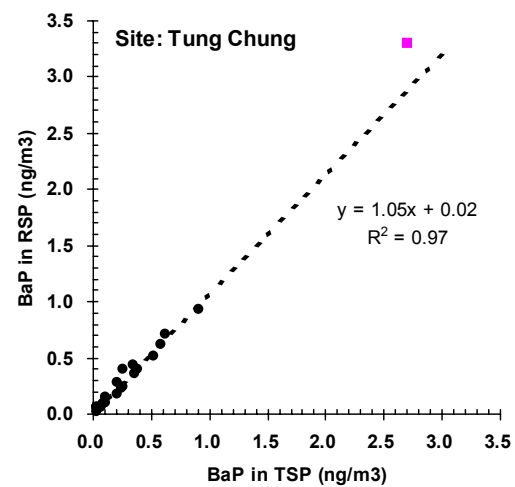
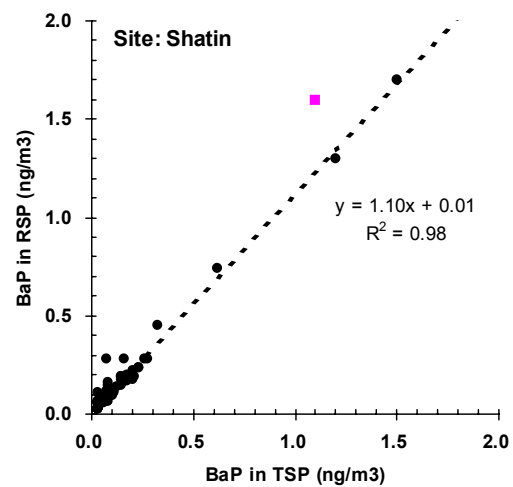
benzaldehyde

Examples of carbonyls

Appendix–2 Comparison of BaP Concentrations in TSP and RSP Samples at Ten Monitoring Stations in Hong Kong

(Points marked as red squares are outliers.)





Appendix-3 Annual Statistics of Measurements of Individual TAPs

EC and Elemental Substances

[EC](#)

[Aluminum](#)

[Arsenic](#)

[Cadmium](#)

[Cr \(VI\)](#)

[Chromium](#)

[Lead](#)

[Manganese](#)

[Nickel](#)

[Vanadium](#)

[Zinc](#)

Dioxins

[Total PCDDs and PCDFs](#)

Polychlorinated Biphenyls

[Total PCBs](#)

Polycyclic Aromatic Hydrocarbons

[Benzo\[a\]pyrene](#)

Carbonyls

[Acetaldehyde](#)

[Acetone](#)

[Benzaldehyde](#)

[Butyraldehyde + Isobutyraldehyde](#)

[Formaldehyde](#)

[Methyl ethyl ketone](#)

[Propanal](#)

[Valeraldehyde](#)

VOCs

[1,3-butadiene](#)

[Benzene](#)

[Toluene](#)

[m+p-Xylenes](#)

[Ethylbenzene](#)

[Carbon tetrachloride](#)

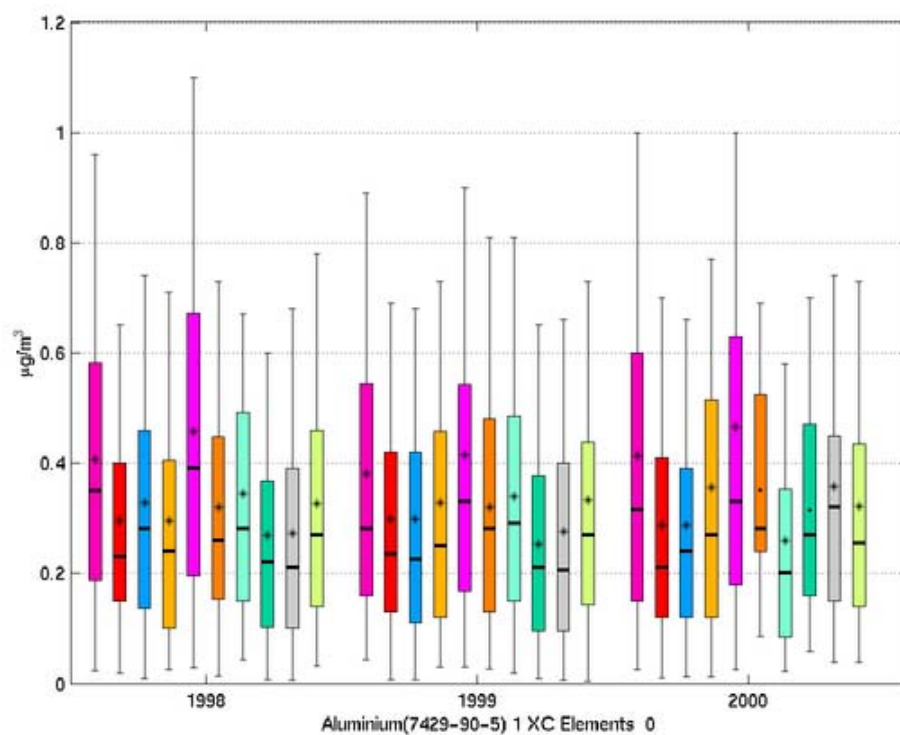
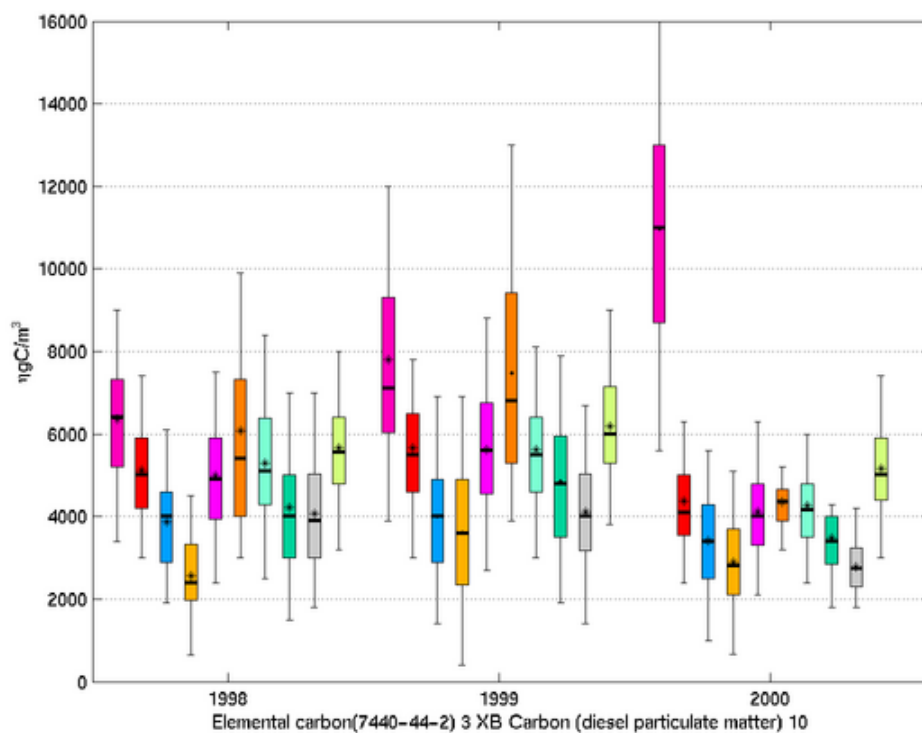
[Chloroform](#)

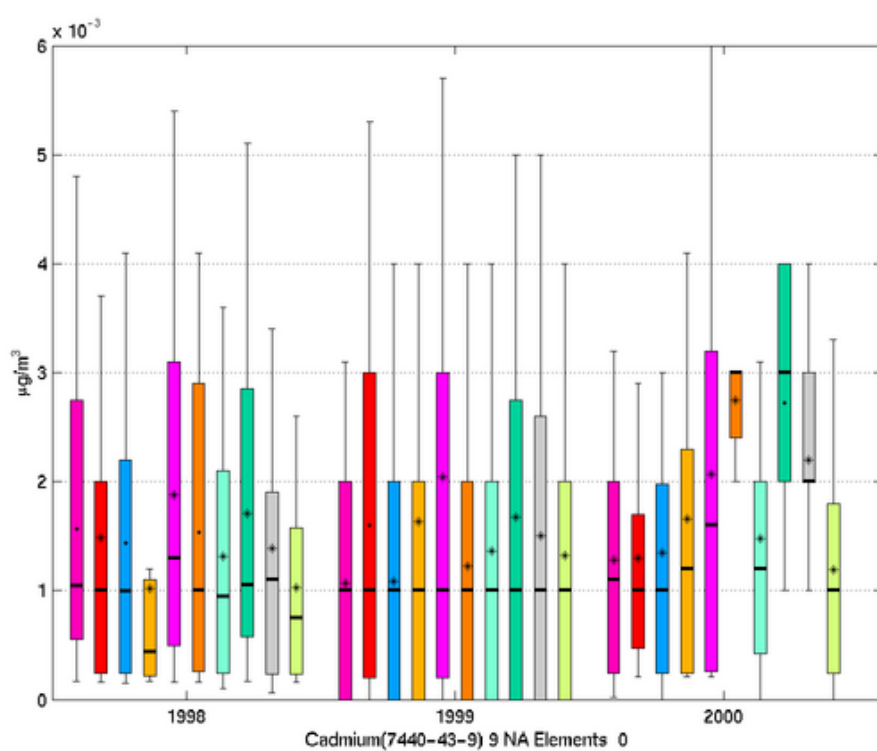
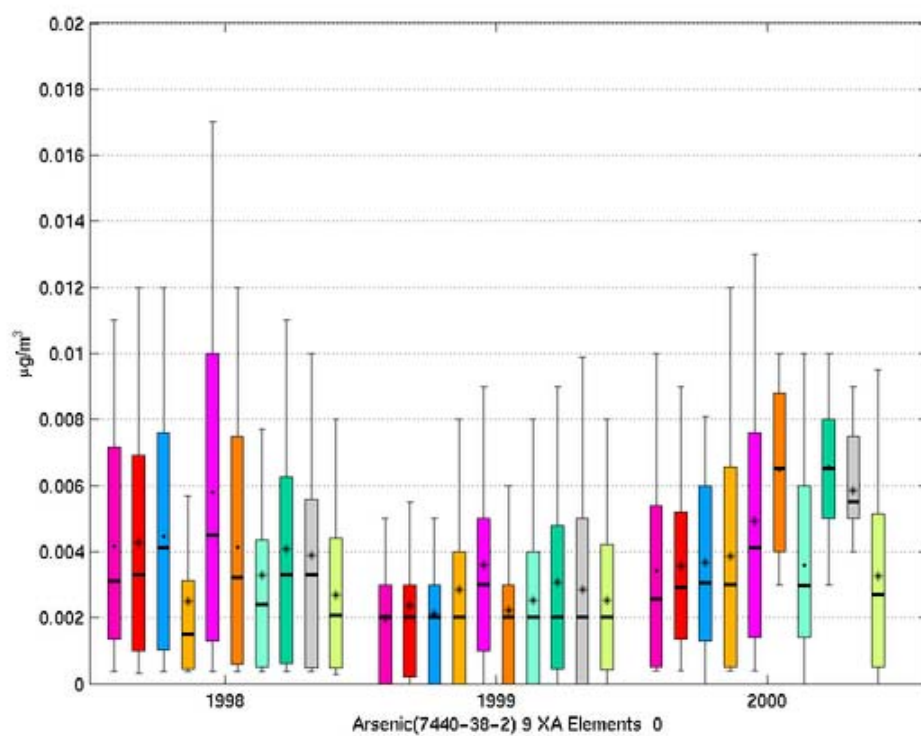
[Methylene Chloride](#)

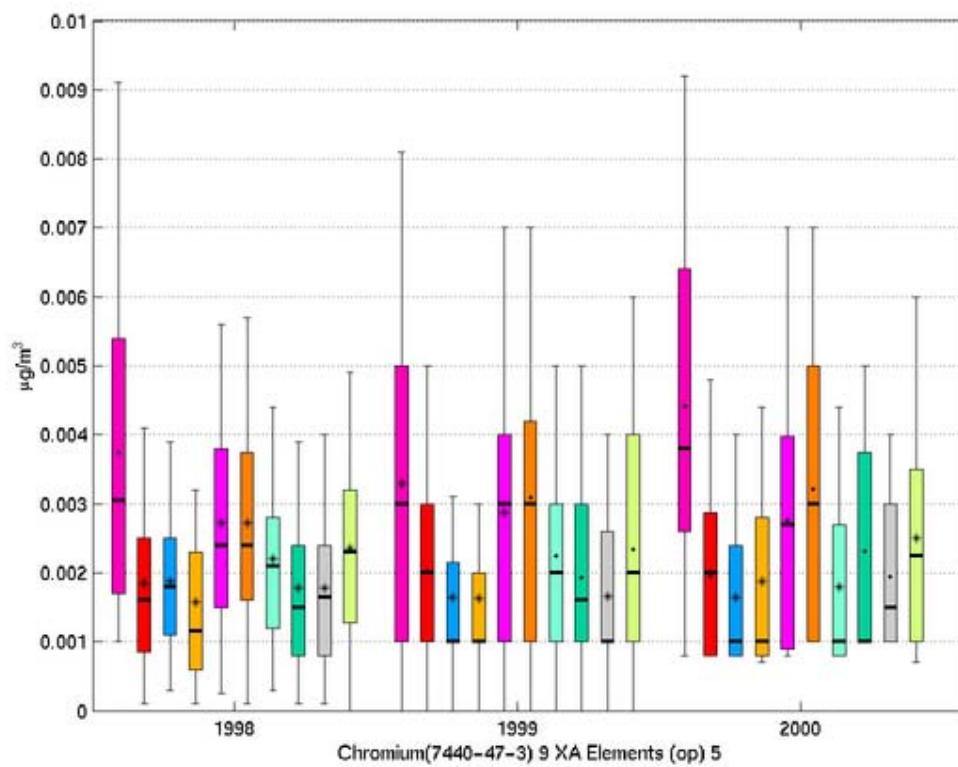
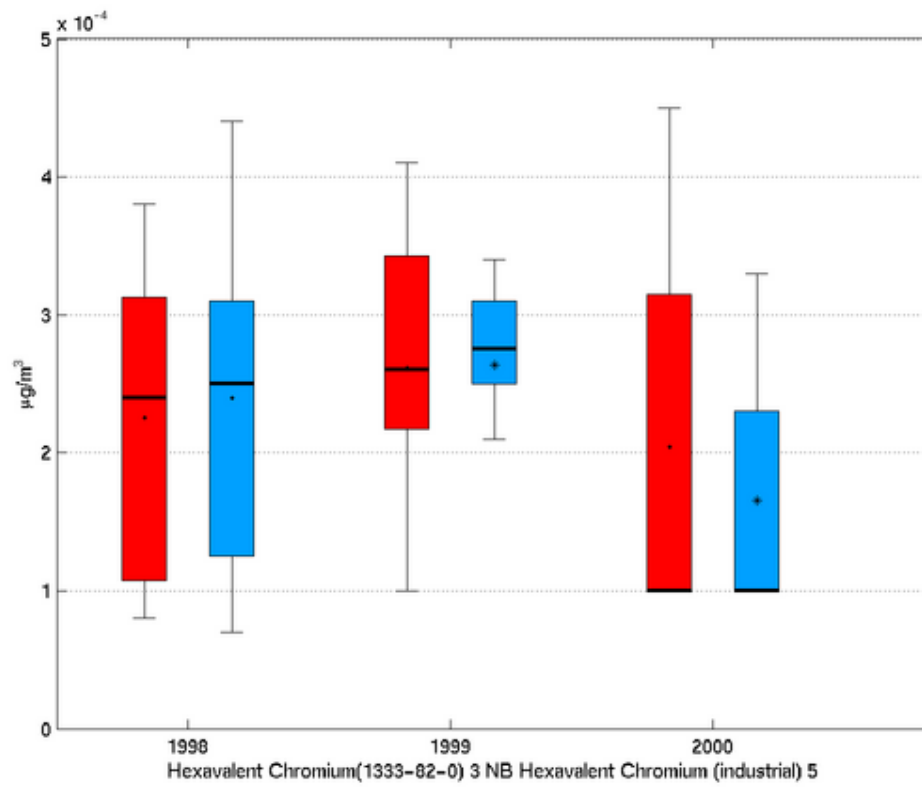
[Tetrachloroethylene](#)

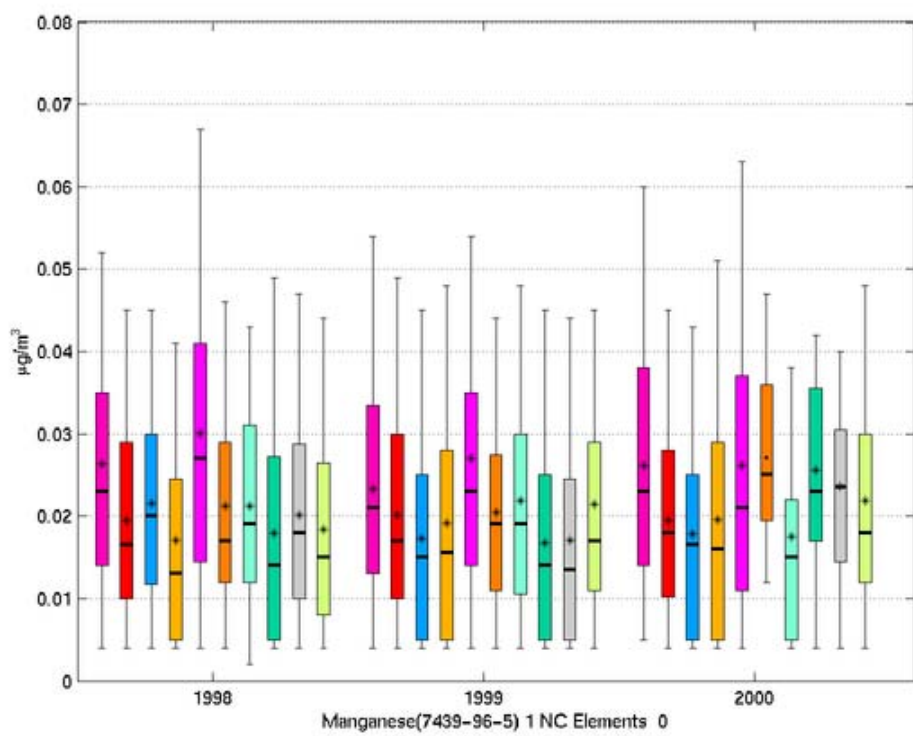
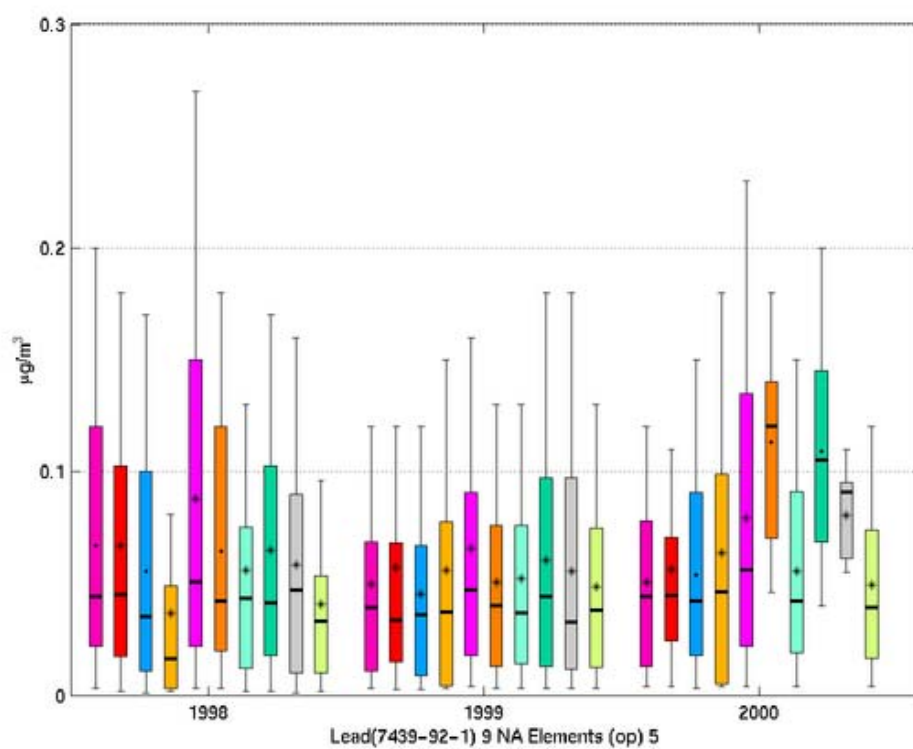


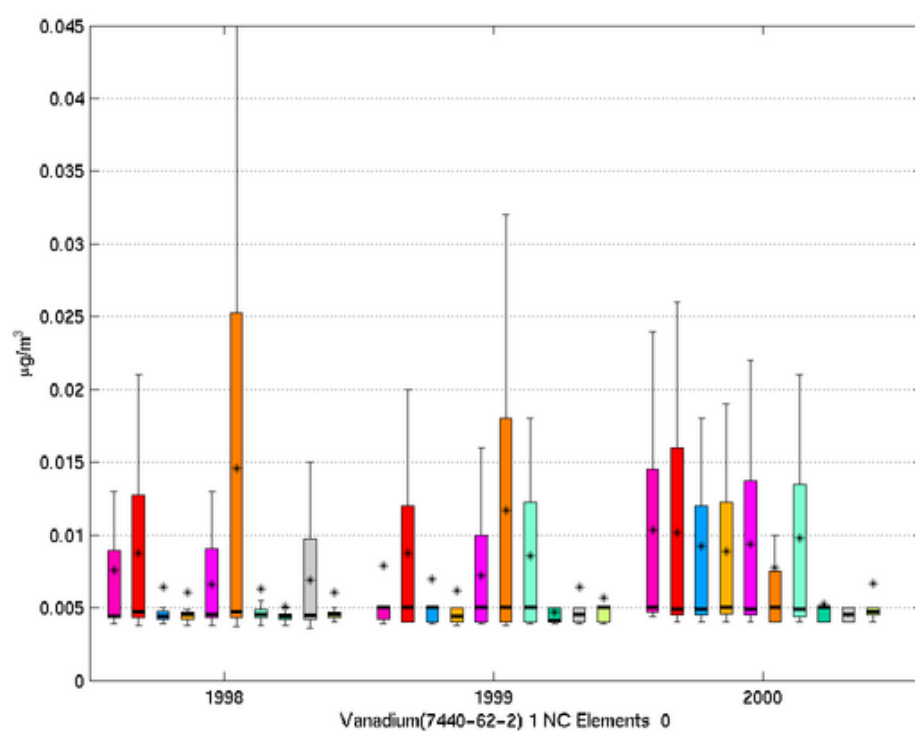
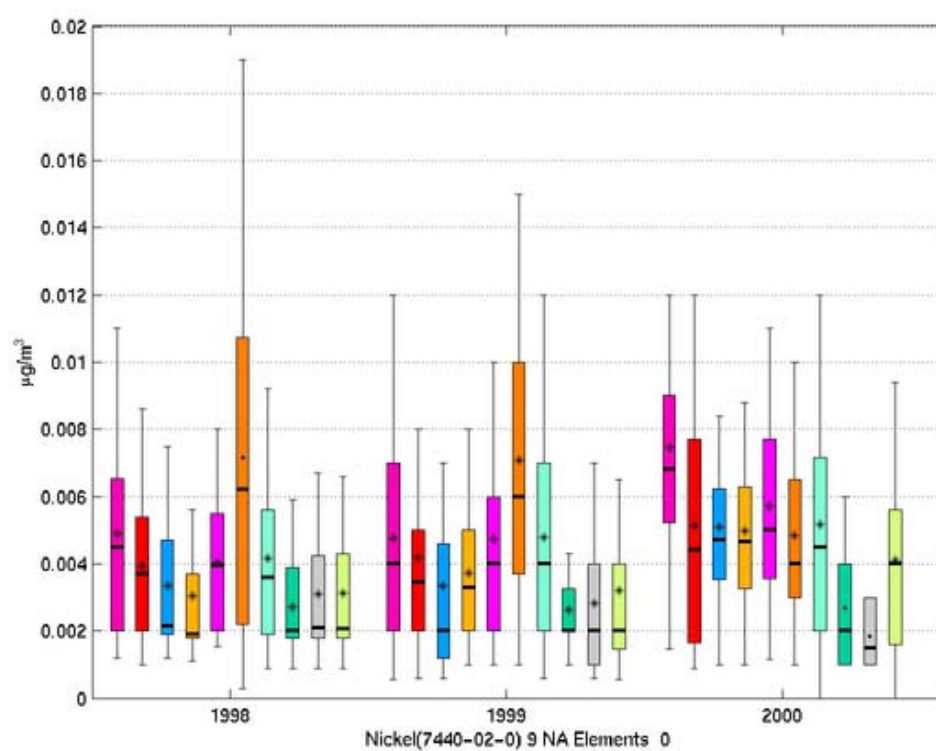
Color key for stations used in plots

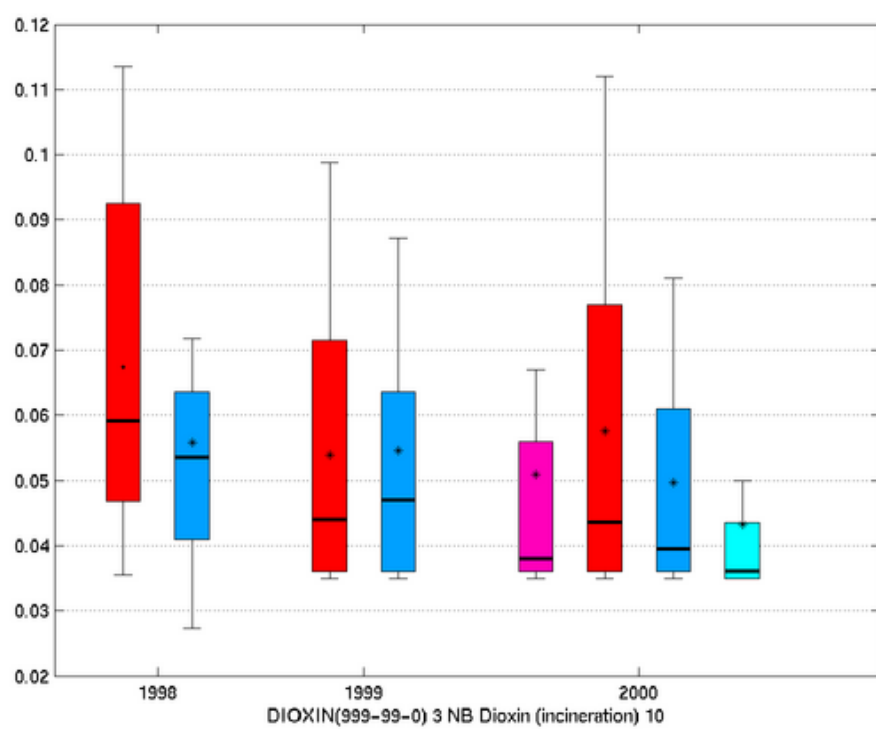
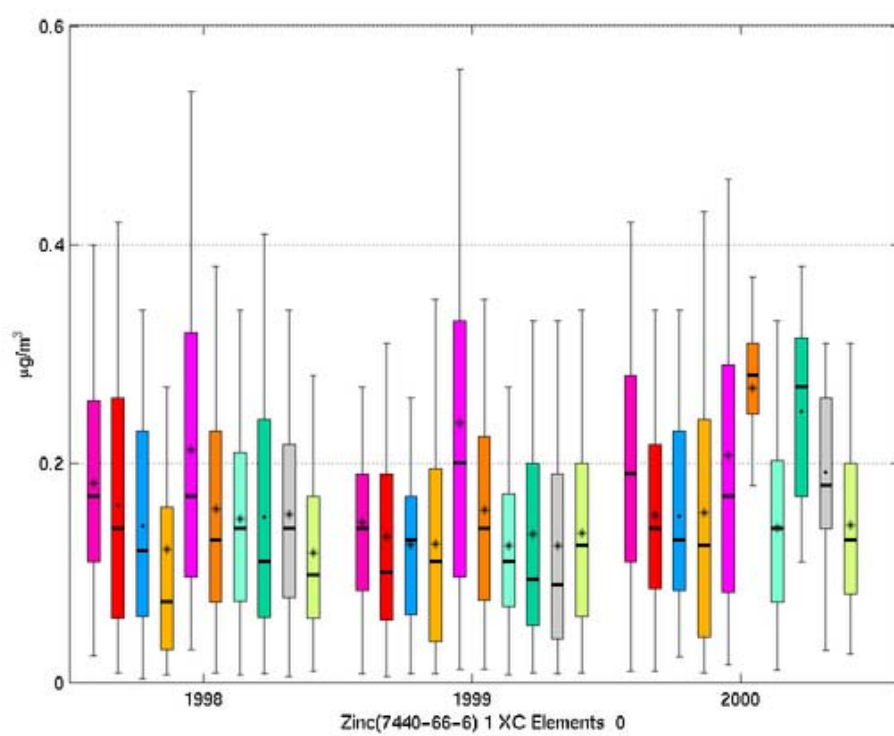


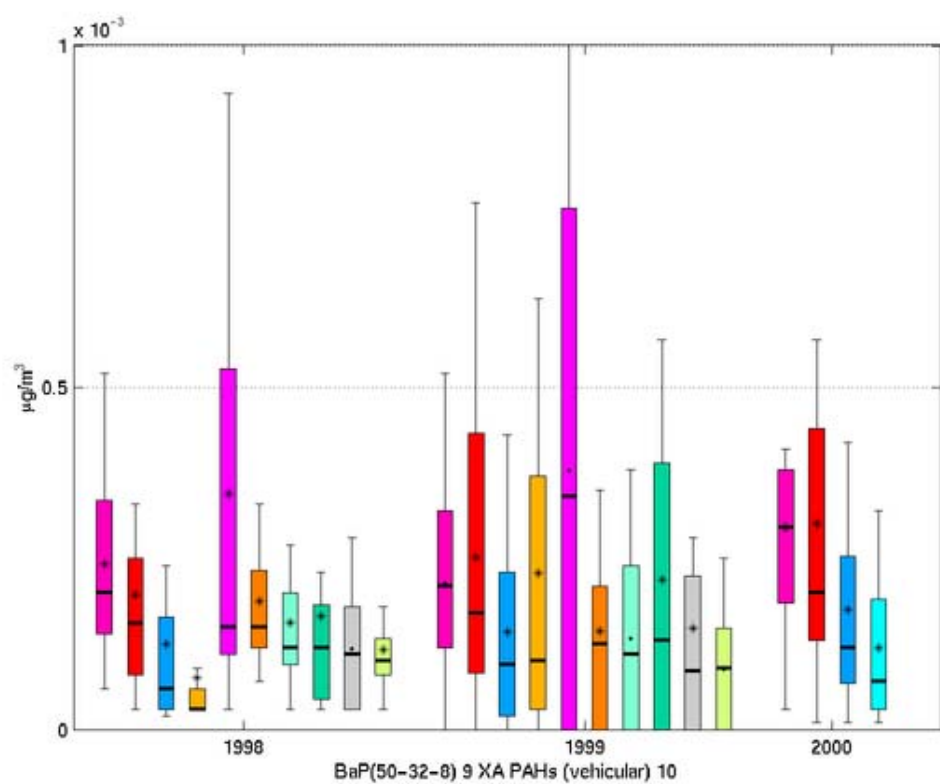
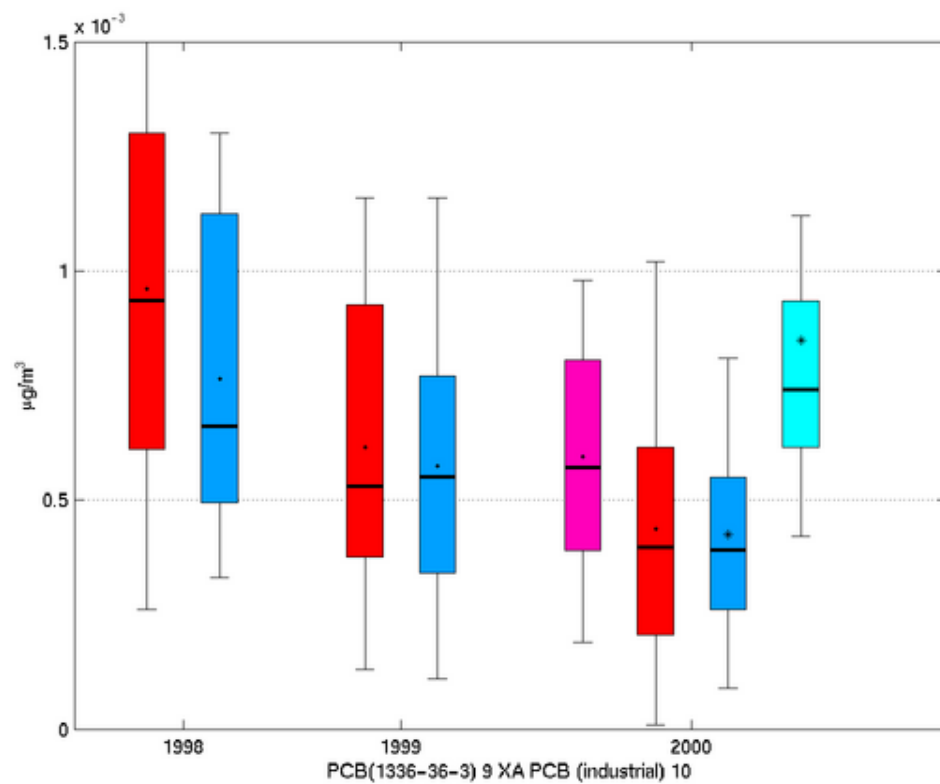


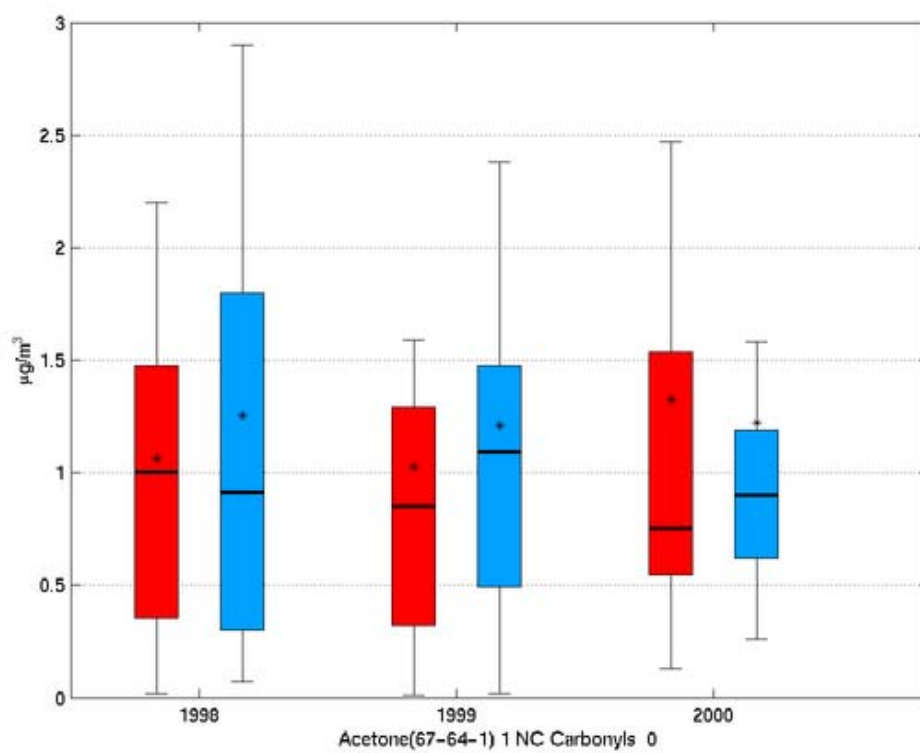
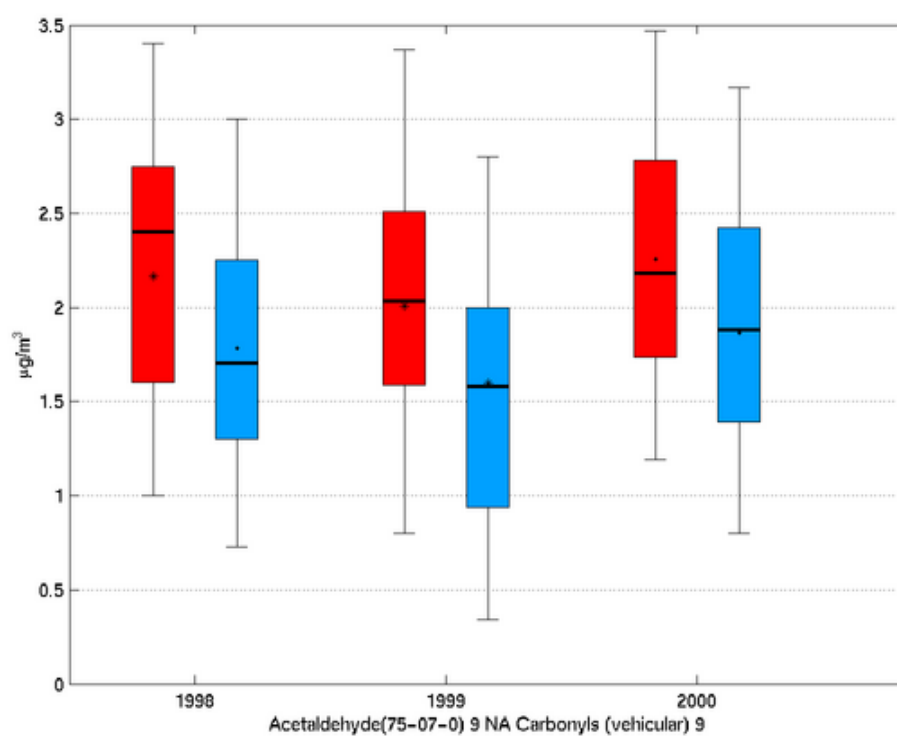


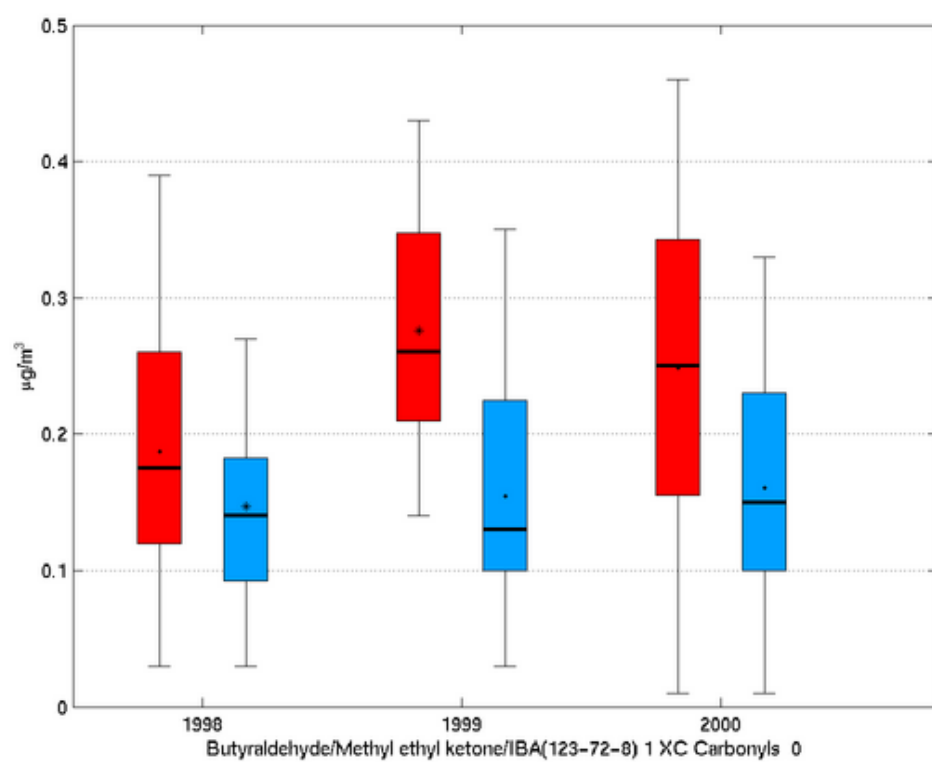
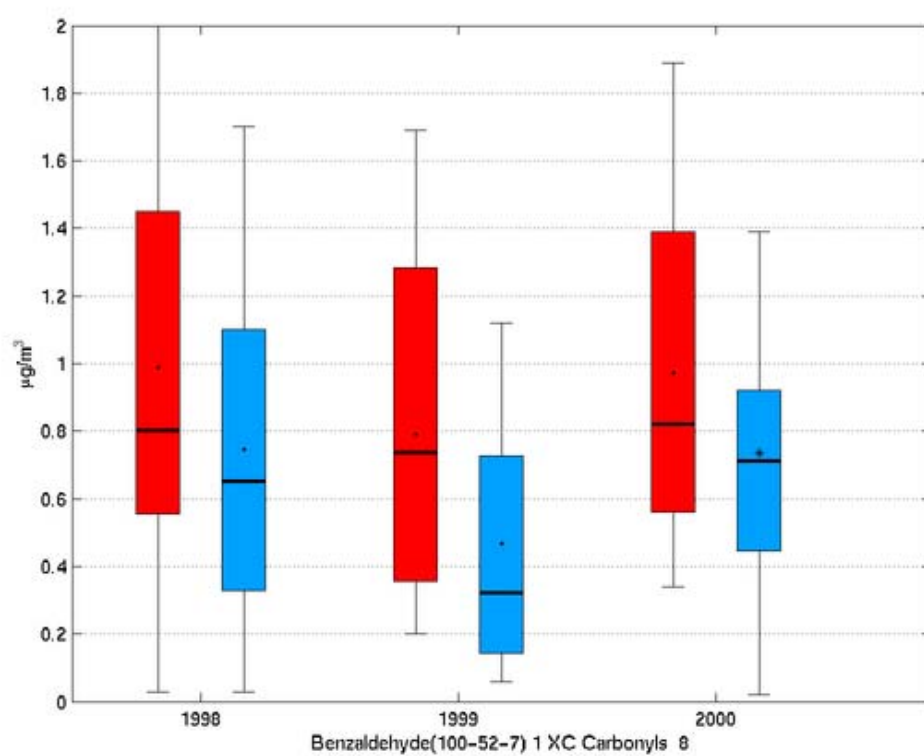


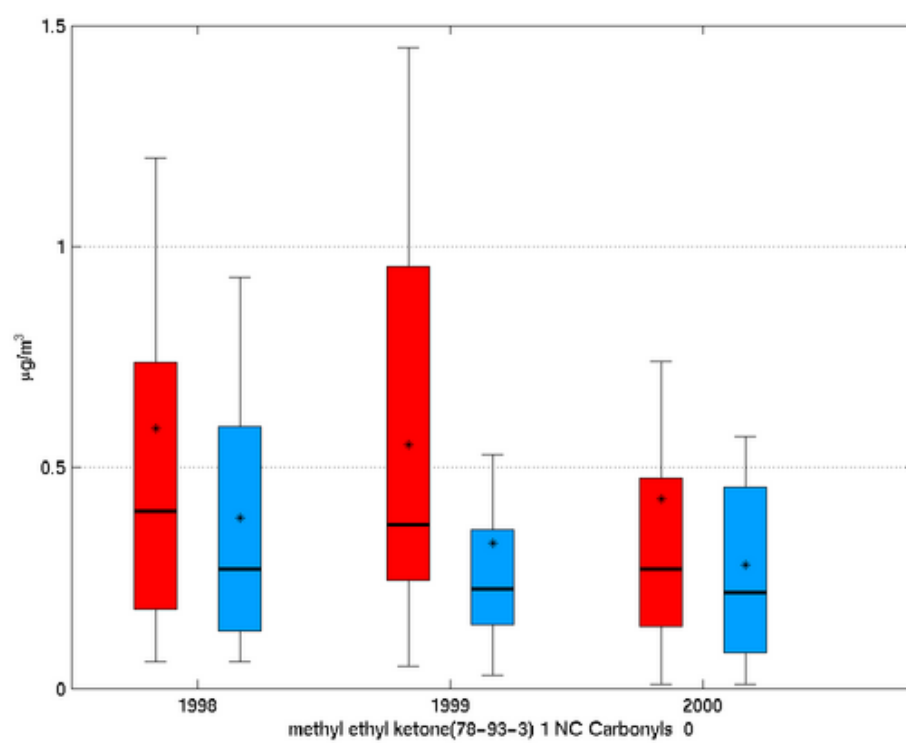
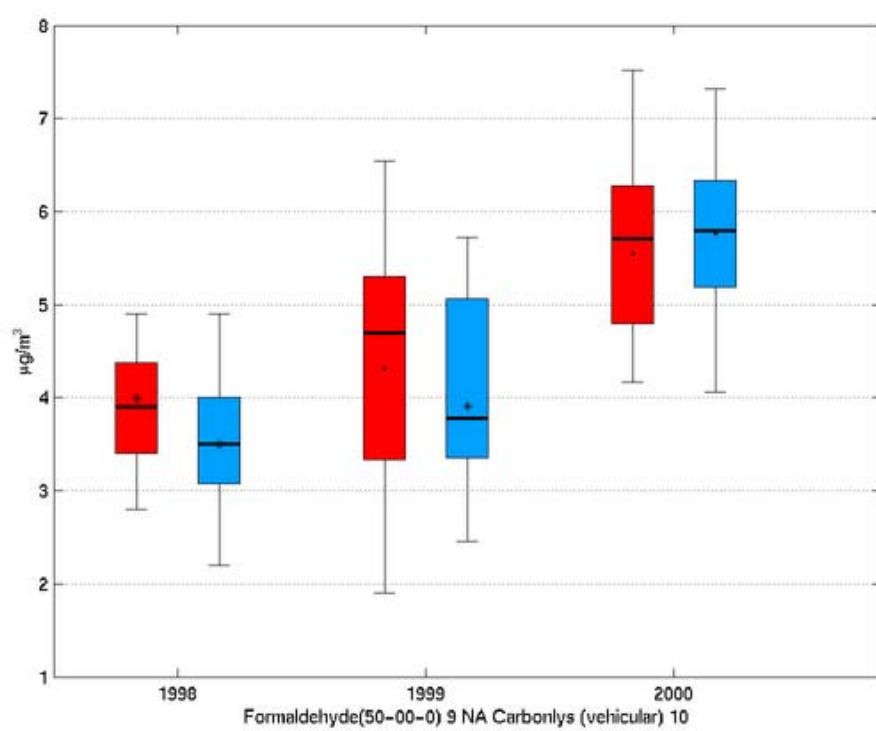


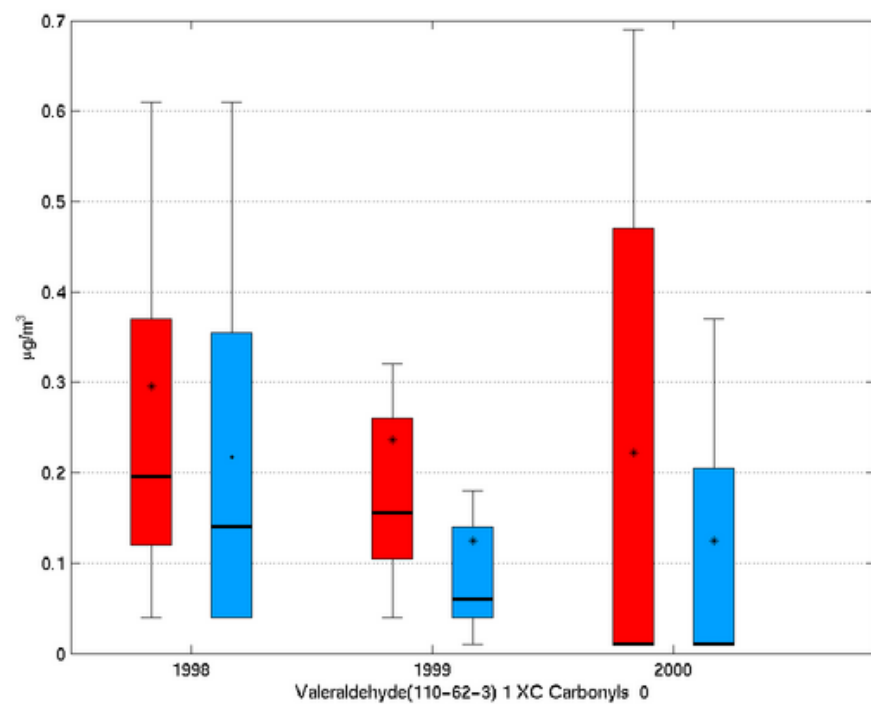
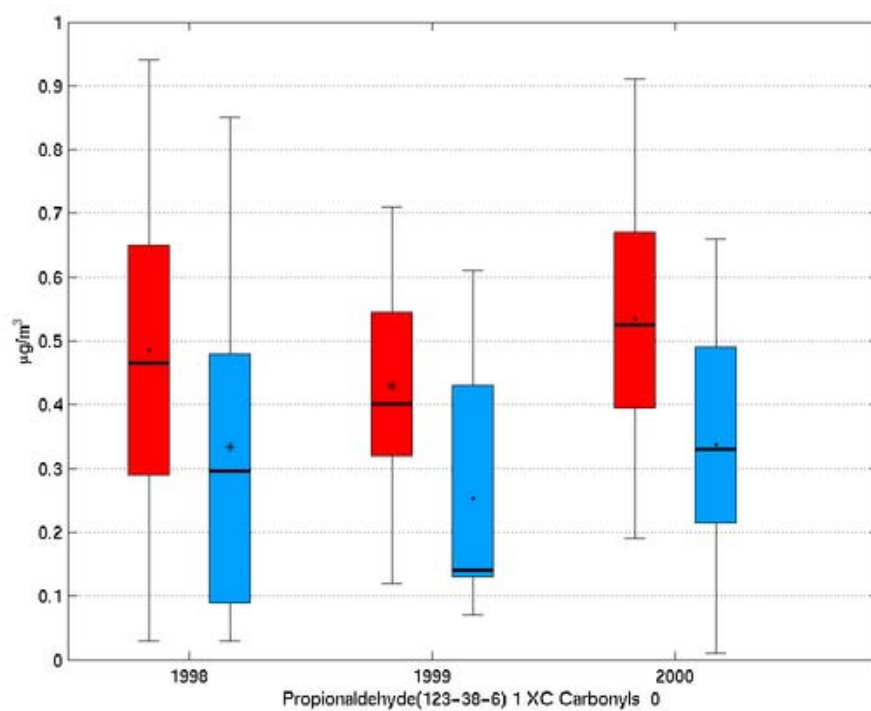


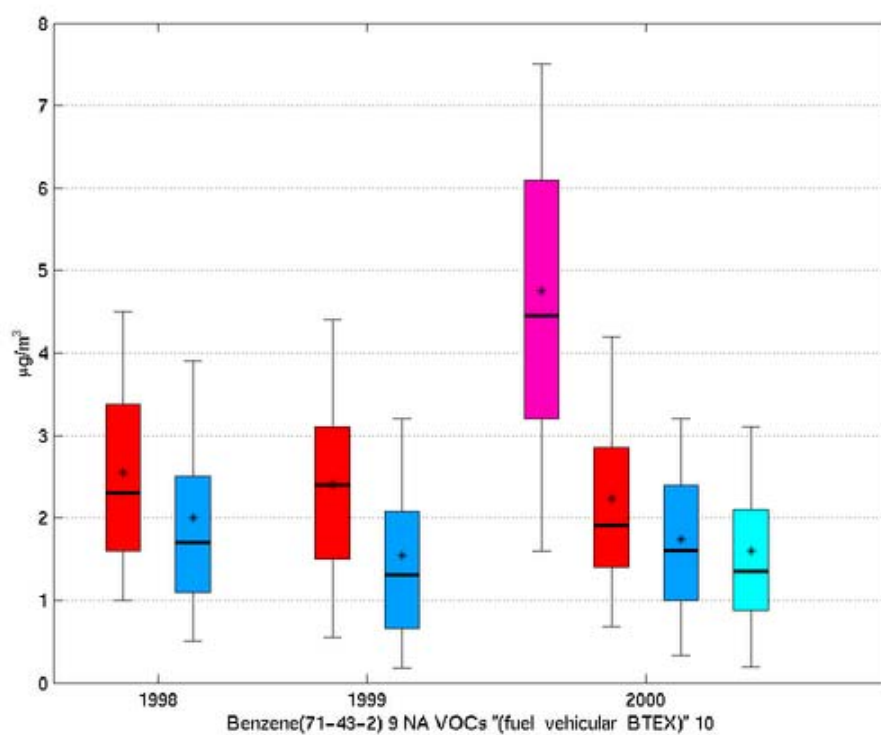
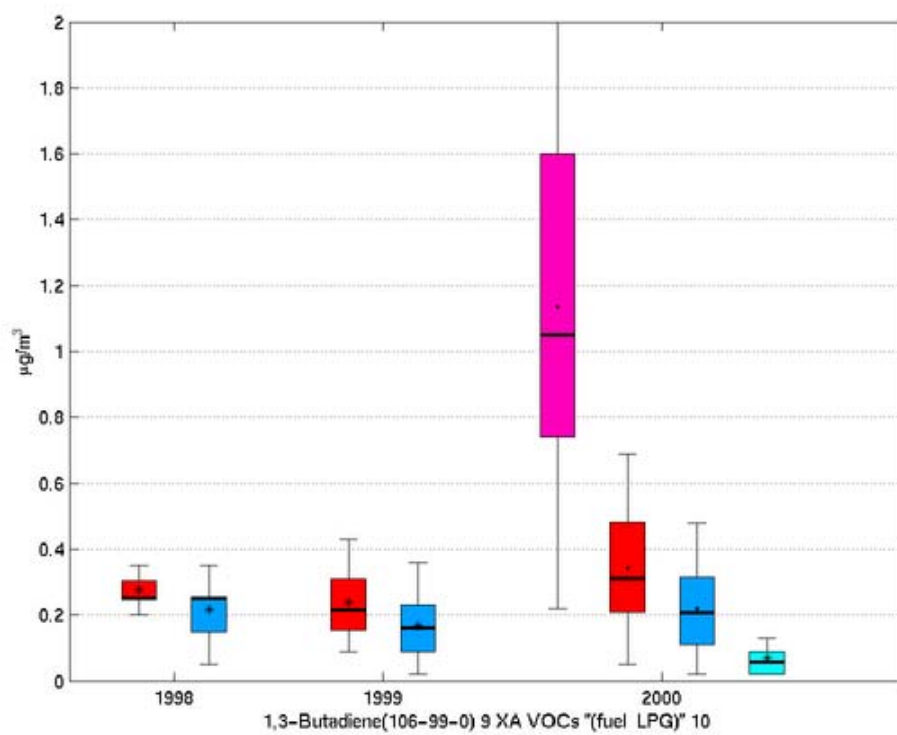


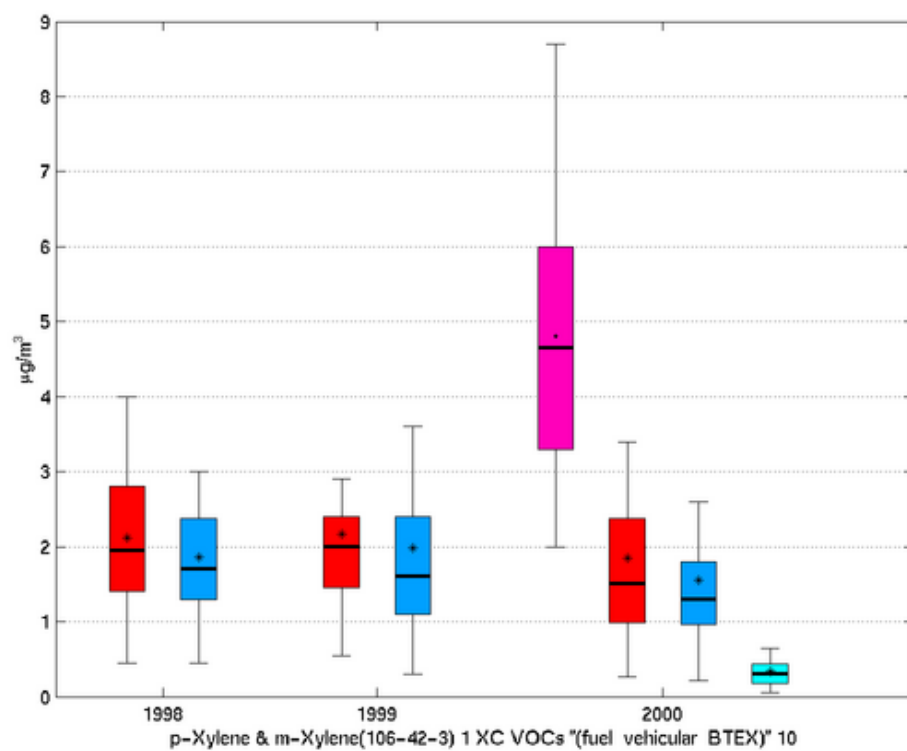
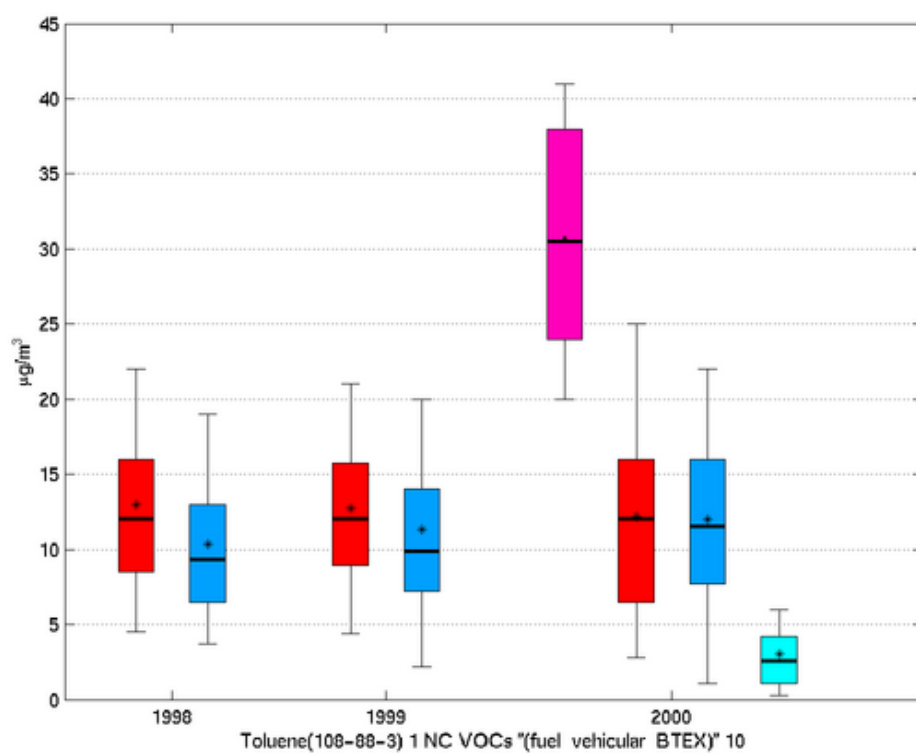


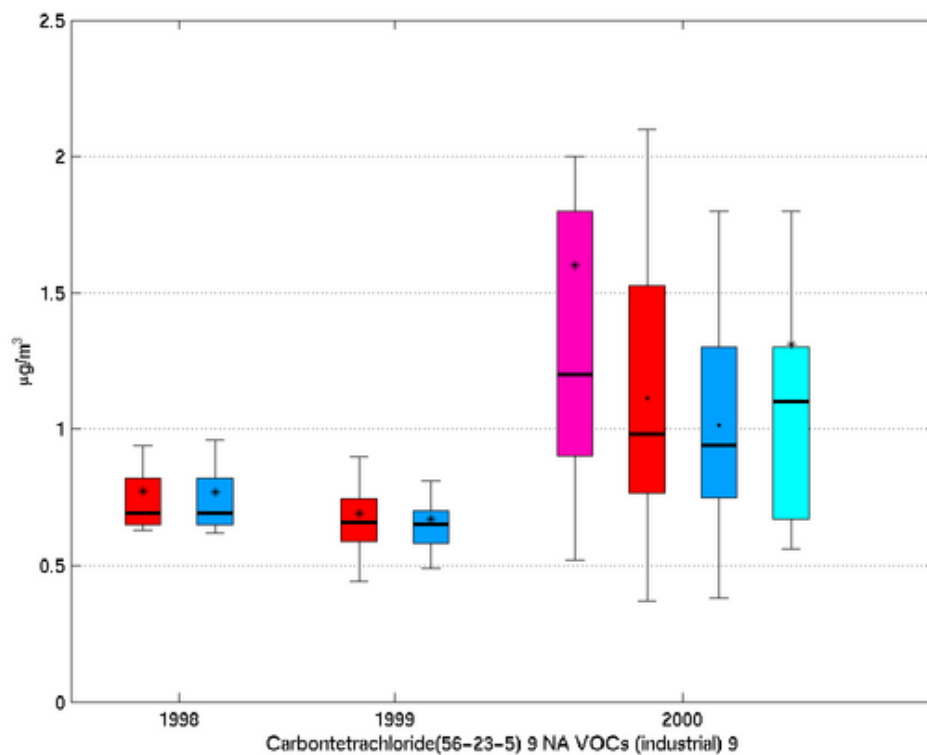
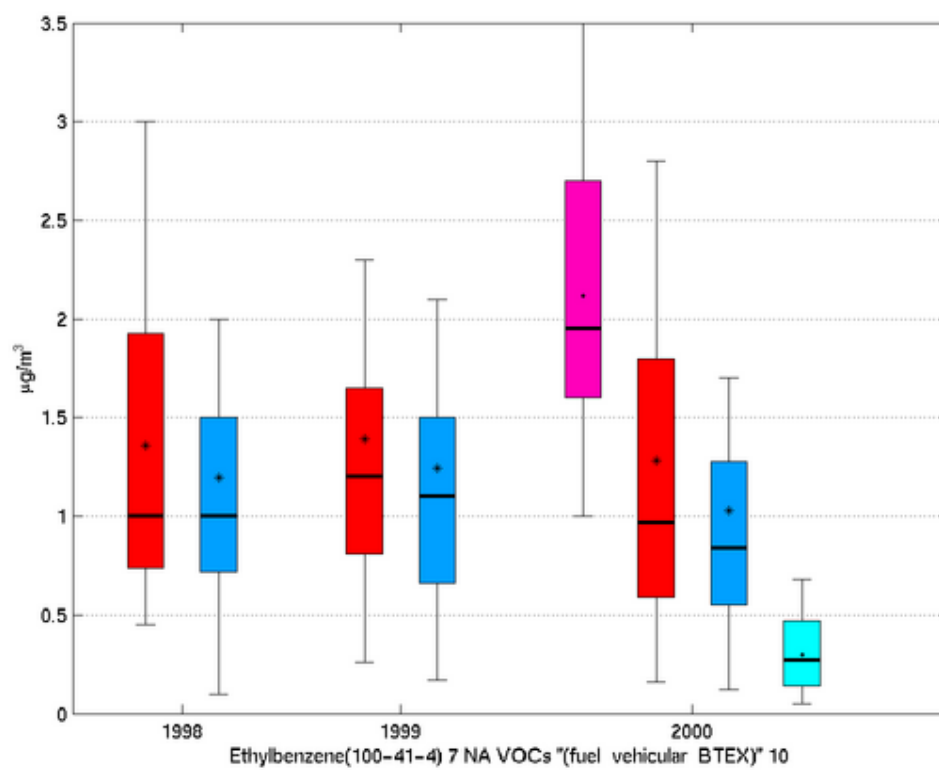


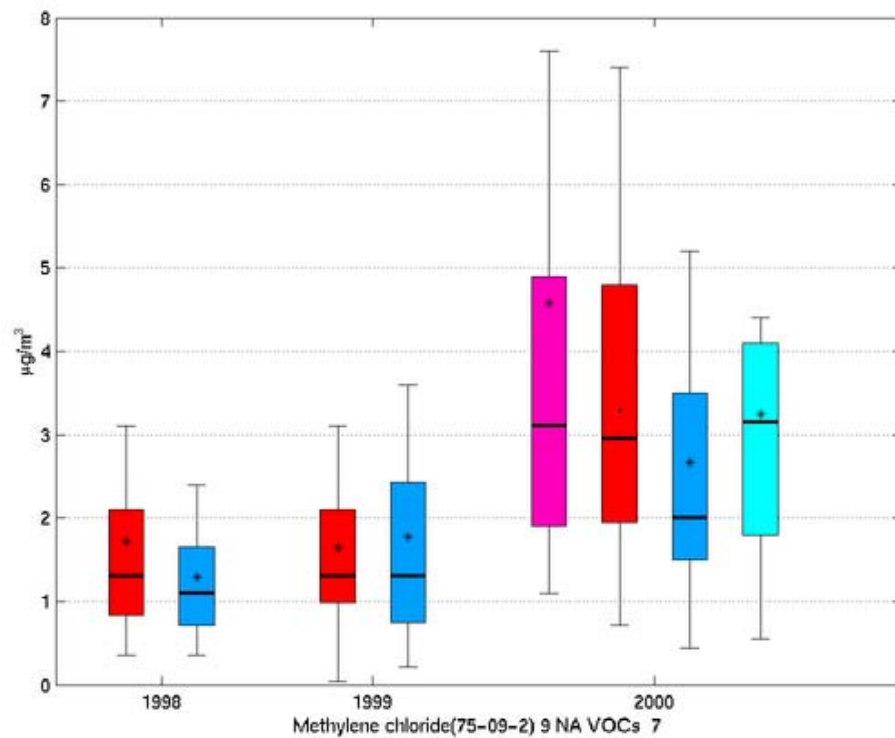
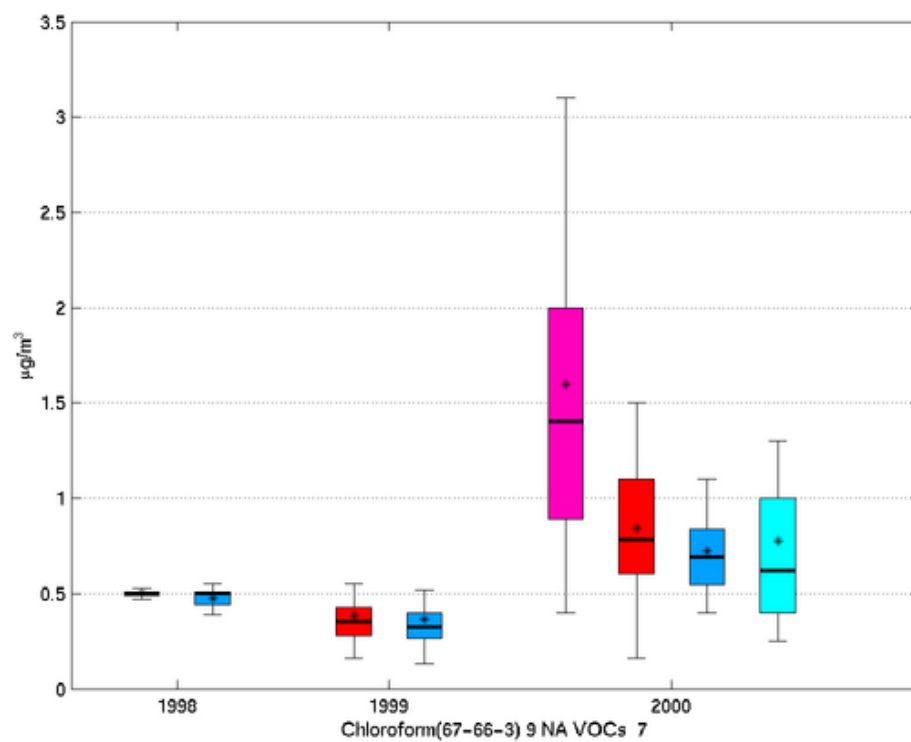


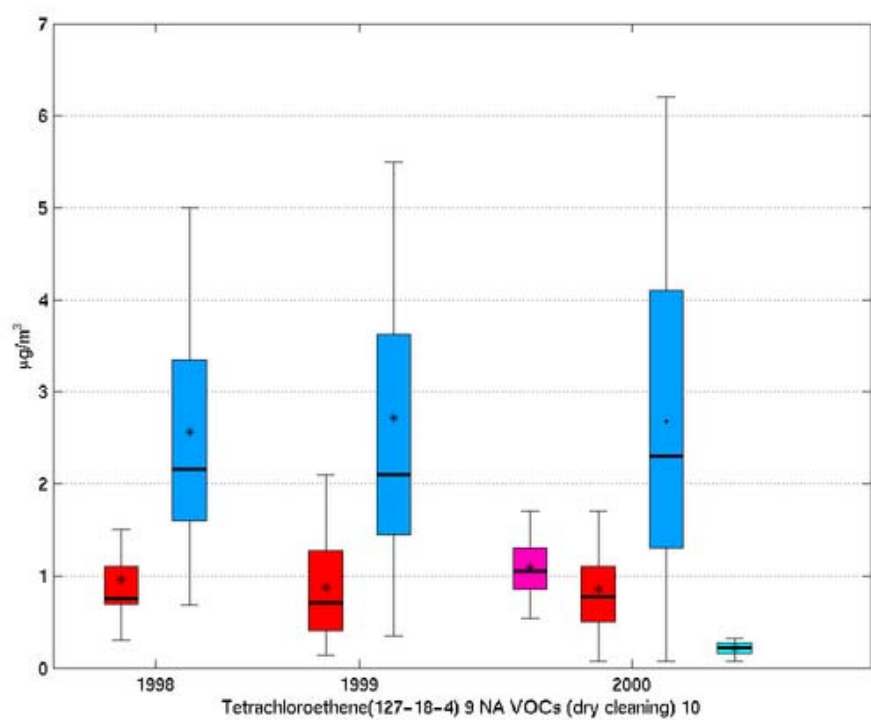












Appendix 4. Toxic Equivalent Factors (TEF) of 17 Dioxin Congeners and 12 Dioxin-like PCB congeners

Dioxin	Congener ^a	I-TEF ^b	WHO-TEF
1	2378-TCDF	0.1	0.1
2	2378-TCDD	1	1
3	12378-PeCDF	0.05	0.05
4	23478-PeCDF	0.5	0.5
5	12378-PeCDD	0.5	1
6	123478-HxCDF	0.1	0.1
7	123678-HxCDF	0.1	0.1
8	234678-HxCDF	0.1	0.1
9	123789-HxCDF	0.1	0.1
10	123478-HxCDD	0.1	0.1
11	123678-HxCDD	0.1	0.1
12	123789-HxCDD	0.1	0.1
13	1234678-HpCDF	0.01	0.01
14	1234789-HpCDF	0.01	0.01
15	1234678-HpCDD	0.01	0.01
16	OCDF	0.001	0.0001
17	OCDD	0.001	0.0001

Dioxin-like PCBs

1	3,4,4',5-TrCB	0.0001
2	3,3',4,4'-TrCB	0.0001
3	3,3',4,4',5-PeCB	0.1
4	3,3',4,4',5,5'-HxCB	0.01
5	2,3,3',4,4'-PeCB	0.0001
6	2,3,4,4',5-PeCB	0.0005
7	2,3',4,4',5-PeCB	0.0001
8	2',3,4,4',5-PeCB	0.0001
9	2,3,3',4,4',5-HxCB	0.0005
10	2,3,3',4,4',5'-HxCB	0.0005
11	2,3',4,4',5,5'-HxCB	0.00001
12	2,3,3',4,4',5,5'-HpCB	0.0001

Note: The congeners in bold differ in their I-TEF and WHO-TEF values

^a The numbers indicate the position of chlorine atoms on the dioxin or dibenzofuran molecule.

^b I-TEF is also known as NATO-TEF.