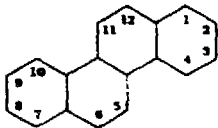
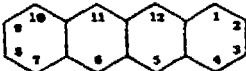
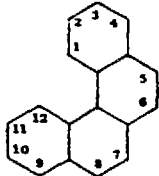
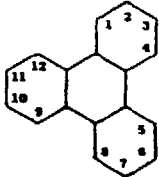
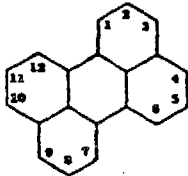
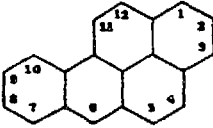
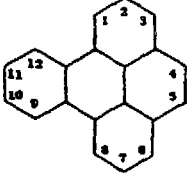
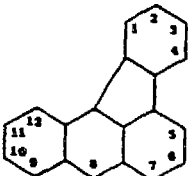
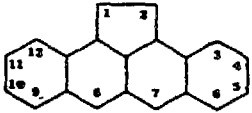


APPENDIX A

Structures of Polycyclic Aromatic Hydrocarbons

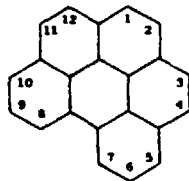
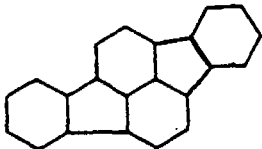
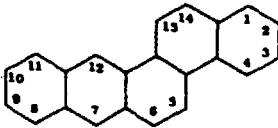
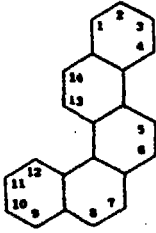
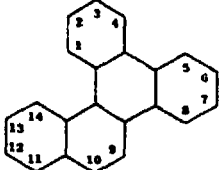
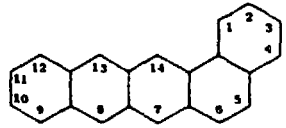
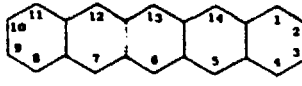
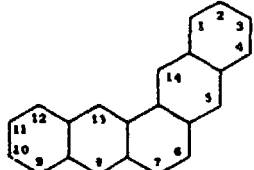
The names, formulas, structures and numbering of all isomers of targeted polycyclic aromatic hydrocarbons (PAH) are given (adapted from Lee et al. 1981). Except for those structures where hydrogens are shown, all PAH are completely saturated. PAH that were quantified and/or are on the targeted list are starred.

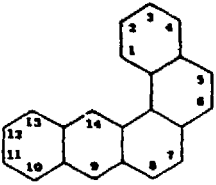
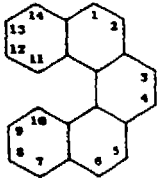
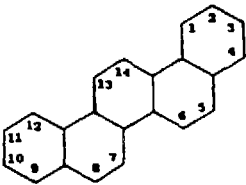
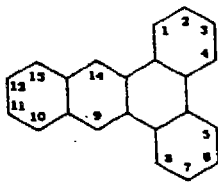
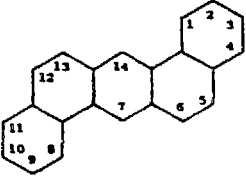
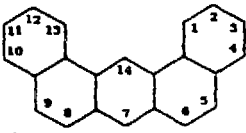
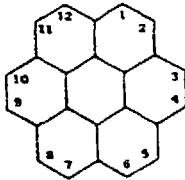
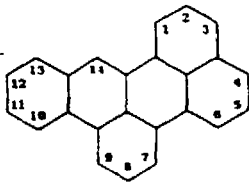
Name	Molecular formula (weight)	Structure
Naphthalene (abbreviated prefix naphtho)*	$C_{10}H_8$ (128)	
Acenaphthylene (abbreviated prefix acenaphtho)*	$C_{12}H_8$ (152)	
Acenaphthene*	$C_{12}H_{10}$ (154)	
Fluorene*	$C_{13}H_{10}$ (166)	
Anthracene (abbreviated prefix anthra)*	$C_{14}H_{10}$ (178)	
Phenanthrene (abbreviated prefix phenanthro)*	$C_{14}H_{10}$ (178)	
Acenanthrylene	$C_{16}H_{10}$ (202)	
Acephenanthrylene*	$C_{16}H_{10}$ (202)	
Fluoranthene*	$C_{16}H_{10}$ (202)	
Pyrene (abbreviated prefix pyrano)*	$C_{16}H_{10}$ (202)	
Benzo[ghi]fluoranthene*	$C_{18}H_{12}$ (226)	
Cyclopenta[cd]pyrene*	$C_{18}H_{10}$ (226)	
Benz[a]anthracene*	$C_{18}H_{12}$ (228)	

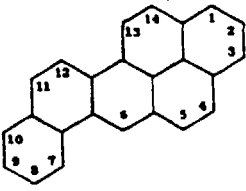
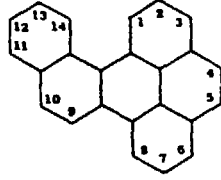
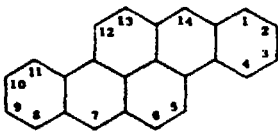
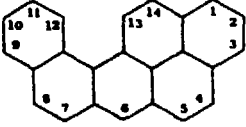
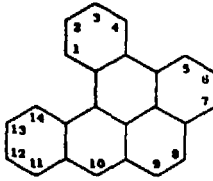
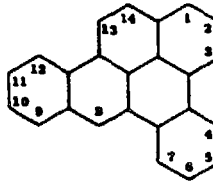
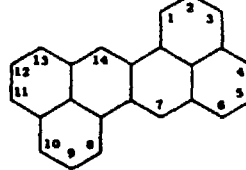
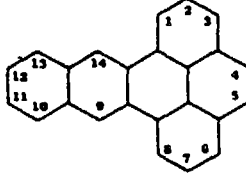
Name	Molecular formula (weight)	Structure
Chrysene (abbreviated prefix chryseno)*	$C_{18}H_{12}$ (228)	
Naphthacene (abbreviated prefix naphthaceno)	$C_{18}H_{12}$ (228)	
Benzo[c]phenanthrene*	$C_{18}H_{12}$ (228)	
Triphenylene (abbreviated prefix triphenyleno)*	$C_{18}H_{12}$ (228)	
Perylene (abbreviated prefix perylo)*	$C_{20}H_{12}$ (252)	
Benzo[a]pyrene*	$C_{20}H_{12}$ (252)	
Benzo[e]pyrene*	$C_{20}H_{12}$ (252)	
Benzo[a] fluoranthene	$C_{20}H_{12}$ (252)	
Benz[d]aceanthrylene	$C_{20}H_{12}$ (252)	

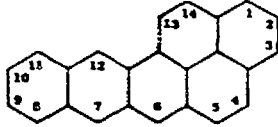
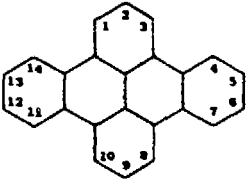
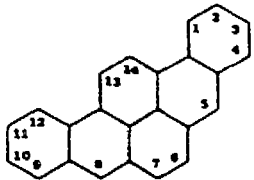
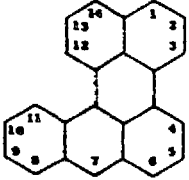
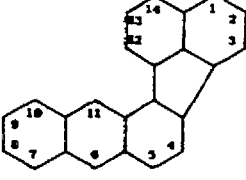
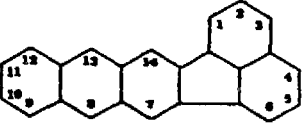
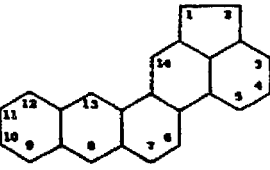
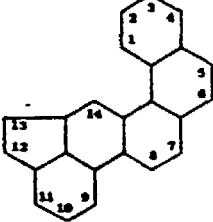
Name	Molecular formula (weight)	Structure
Benz[e]aceanthrylene	$C_{20}H_{12}$ (252)	
Benz[l]acephenanthrylene	$C_{20}H_{12}$ (252)	
Benz[j]aceanthrylene	$C_{20}H_{12}$ (252)	
Cyclopenta[de]naphthacene	$C_{20}H_{12}$ (252)	
Benz[l]aceanthrylene	$C_{20}H_{12}$ (252)	
Benz[a]acephenanthrylene	$C_{20}H_{12}$ (252)	
Benz[e]acephenanthrylene* (Benzo[b] fluoranthene)	$C_{20}H_{12}$ (252)	
Benz[k]acephenanthrylene	$C_{20}H_{12}$ (252)	
Benzo[j]fluoranthene*	$C_{20}H_{12}$ (252)	
Benzo[k]fluoranthene*	$C_{20}H_{12}$ (252)	

Name	Molecular formula (weight)	Structure
Cyclopenta[hi]chrysene	$C_{20}H_{12}$ (252)	
Benzo[def]cyclopenta[qr]chrysene	$C_{22}H_{12}$ (276)	
Indeno[1,2,3-cd]pyrene*	$C_{22}H_{12}$ (276)	
Indeno[1,7-ab]pyrene	$C_{22}H_{12}$ (276)	
Indeno[1,7,6,5-cdef]chrysene	$C_{22}H_{12}$ (276)	
Indeno[5,6,7,1-defg]chrysene	$C_{22}H_{12}$ (276)	
Benzo[e]cyclopenta[jk]pyrene	$C_{22}H_{12}$ (276)	
Cyclopenta[cd]perylene	$C_{22}H_{12}$ (276)	
Dibenzo[def,mno]chrysene* (Anthanthrene)	$C_{22}H_{12}$ (276)	

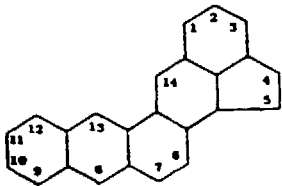
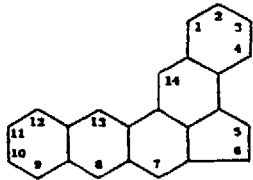
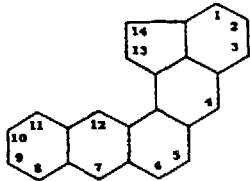
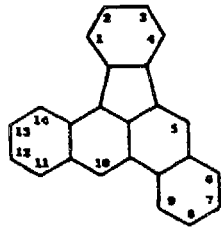
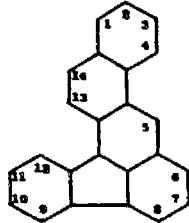
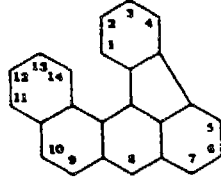
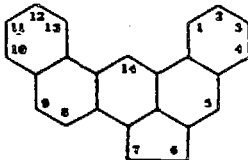
Name	Molecular formula (weight)	Structure
Benzo[ghi]perylene*	$C_{22}H_{12}$ (276)	
Indeno[1,2,3-cd]fluoranthene*	$C_{22}H_{12}$ (276)	
Benzo[b]chrysene*	$C_{22}H_{14}$ (278)	
Benzo[c]chrysene*	$C_{22}H_{14}$ (278)	
Benzo[g]chrysene*	$C_{22}H_{14}$ (278)	
Benzo[a]naphthacene	$C_{22}H_{14}$ (278)	
Pentacene	$C_{22}H_{14}$ (278)	
Pentaphene	$C_{22}H_{14}$ (278)	

Name	Molecular formula (weight)	Structure
Dibenzo[b,g]phenanthrene	$C_{22}H_{14}$ (278)	
Dibenzo[c,g]phenanthrene	$C_{22}H_{14}$ (278)	
Picene*	$C_{22}H_{14}$ (278)	
Dibenz[a,c]anthracene*	$C_{22}H_{14}$ (278)	
Dibenz[a,h]anthracene*	$C_{22}H_{14}$ (278)	
Dibenz[a,j]anthracene*	$C_{22}H_{14}$ (278)	
Coronene*	$C_{24}H_{12}$ (300)	
Benzo[h]perylene	$C_{24}H_{14}$ (302)	

Name	Molecular formula (weight)	Structure
Benzo[<i>pqr</i>]picene	$C_{24}H_{14}$ (302)	
Naphtho[1,2- <i>e</i>]pyrene	$C_{24}H_{14}$ (302)	
Dibenzo[<i>b,def</i>]chrysene* (Dibenzo [a, h] pyrene)	$C_{24}H_{14}$ (302)	
Dibenzo[<i>c,mno</i>]chrysene	$C_{24}H_{14}$ (302)	
Dibenzo[<i>def,p</i>]chrysene* (Dibenzo [a, l] pyrene)	$C_{24}H_{14}$ (302)	
Naphtho[1,2,3,4- <i>def</i>]chrysene* (Dibenzo [a, e] pyrene)	$C_{24}H_{14}$ (302)	
Dibenzo[<i>de,mn</i>]naphthacene	$C_{24}H_{14}$ (302)	
Dibenzo[<i>de,qr</i>]naphthacene	$C_{24}H_{14}$ (302)	

Name	Molecular formula (weight)	Structure
Naphtho[2,1,8- <i>gra</i>]naphthacene	$C_{24}H_{14}$ (302)	
Dibenzo[<i>fg,op</i>]naphthacene	$C_{24}H_{14}$ (302)	
Benzo[<i>rst</i>]pentaphene* (Dibenzo[<i>a,i</i>] pyrene)	$C_{24}H_{14}$ (302)	
Benzo[<i>a</i>]perylene	$C_{24}H_{14}$ (302)	
Naphtho[2,3- <i>j</i>]fluoranthene	$C_{24}H_{14}$ (302)	
Naphtho[2,3- <i>k</i>]fluoranthene	$C_{24}H_{14}$ (302)	
Benzo[<i>b</i>]cyclopenta[<i>hi</i>]chrysene	$C_{24}H_{14}$ (302)	
Benzo[<i>c</i>]cyclopenta[<i>hi</i>]chrysene	$C_{24}H_{14}$ (302)	

Name	Molecular formula (weight)	Structure
Benzo[<i>b</i>]cyclopenta[<i>qr</i>]chrysene	C ₂₄ H ₁₄ (302)	
Benzo[<i>c</i>]cyclopenta[<i>qr</i>]chrysene	C ₂₄ H ₁₄ (302)	
Benzo[<i>a</i>]cyclopenta[<i>de</i>]-naphthacene	C ₂₄ H ₁₄ (302)	
Benzo[<i>a</i>]cyclopenta[<i>fg</i>]-naphthacene	C ₂₄ H ₁₄ (302)	
Benzo[<i>a</i>]cyclopenta[<i>hi</i>]-naphthacene	C ₂₄ H ₁₄ (302)	
Benzo[<i>a</i>]cyclopenta[<i>mn</i>]-naphthacene	C ₂₄ H ₁₄ (302)	
Benzo[<i>a</i>]cyclopenta[<i>op</i>]-naphthacene	C ₂₄ H ₁₄ (302)	
Cyclopenta[<i>de</i>]pentacene	C ₂₄ H ₁₄ (302)	
Cyclopenta[<i>fg</i>]pentacene	C ₂₄ H ₁₄ (302)	

Name	Molecular formula (weight)	Structure
Cyclopenta[de]pentaphene	$C_{24}H_{14}$ (302)	
Cyclopenta[fg]pentaphene	$C_{24}H_{14}$ (302)	
Cyclopenta[pq]pentaphene	$C_{24}H_{14}$ (302)	
Dibenz[a,e]aceanthrylene*	$C_{24}H_{14}$ (302)	
Dibenz[a,j]aceanthrylene	$C_{24}H_{14}$ (302)	
Dibenz[a,l]aceanthrylene	$C_{24}H_{14}$ (302)	
Dibenz[e,j]aceanthrylene	$C_{24}H_{14}$ (302)	

Name	Molecular formula (weight)	Structure
Dibenz[<i>e,f</i>]aceanthrylene	$C_{24}H_{14}$ (302)	
Dibenz[<i>a,k</i>]acephenanthrylene	$C_{24}H_{14}$ (302)	
Dibenz[<i>e,k</i>]acephenanthrylene	$C_{24}H_{14}$ (302)	
Dibenzo[<i>b,e</i>]fluoranthene	$C_{24}H_{14}$ (302)	
Dibenzo[<i>b,k</i>]fluoranthene	$C_{24}H_{14}$ (302)	
Dibenzo[<i>j,l</i>]fluoranthene	$C_{24}H_{14}$ (302)	
Indeno[1,2,3- <i>hi</i>]chrysene	$C_{24}H_{14}$ (302)	
Indeno[1,7- <i>ab</i>]chrysene	$C_{24}H_{14}$ (302)	

Name	Molecular formula (weight)	Structure
Cyclopenta[<i>de</i>]picene	$C_{24}H_{14}$ (302)	
Indeno[7,1- <i>bc</i>]chrysene	$C_{24}H_{14}$ (302)	
Indeno[1,2,3- <i>fg</i>]naphthacene	$C_{24}H_{14}$ (302)	
Indeno[1,2,3- <i>de</i>]naphthacene	$C_{24}H_{14}$ (302)	
Indeno[7,1- <i>ab</i>]naphthacene	$C_{24}H_{14}$ (302)	
Indeno[1,7- <i>ab</i>]triphenylene	$C_{24}H_{14}$ (302)	
Indeno[7,1- <i>ab</i>]triphenylene	$C_{24}H_{14}$ (302)	
Naphth[1,2- <i>a</i>]aceanthrylene	$C_{24}H_{14}$ (302)	

Name	Molecular formula (weight)	Structure
Naphth[1,2- <i>j</i>]aceanthrylene	$C_{24}H_{14}$ (302)	
Naphth[2,1- <i>a</i>]aceanthrylene	$C_{24}H_{14}$ (302)	
Naphth[2,1- <i>e</i>]aceanthrylene	$C_{24}H_{14}$ (302)	
Naphth[2,1- <i>i</i>]aceanthrylene	$C_{24}H_{14}$ (302)	
Naphth[2,3- <i>a</i>]aceanthrylene	$C_{24}H_{14}$ (302)	
Naphth[1,2- <i>a</i>]acephenanthrylene	$C_{24}H_{14}$ (302)	
Naphth[1,2- <i>e</i>]acephenanthrylene	$C_{24}H_{14}$ (302)	
Naphth[1,2- <i>k</i>]fluoranthene	$C_{24}H_{14}$ (302)	

Name	Molecular formula (weight)	Structure
Naphth[2,1- <i>e</i>]acephenanthrylene	C ₂₄ H ₁₄ (302)	
Naphth[2,1- <i>k</i>]acephenanthrylene	C ₂₄ H ₁₄ (302)	
Naphth[2,1- <i>l</i>]acephenanthrylene	C ₂₄ H ₁₄ (302)	
Naphth[2,3- <i>l</i>]acephenanthrylene	C ₂₄ H ₁₄ (302)	
Naphtho[2,1- <i>b</i>]fluoranthene	C ₂₄ H ₁₄ (302)	
Naphtho[2,1- <i>j</i>]fluoranthene	C ₂₄ H ₁₄ (302)	
Naphtho[1,2- <i>k</i>]fluoranthene	C ₂₄ H ₁₄ (302)	
Naphtho[1,2- <i>j</i>]fluoranthene	C ₂₄ H ₁₄ (302)	

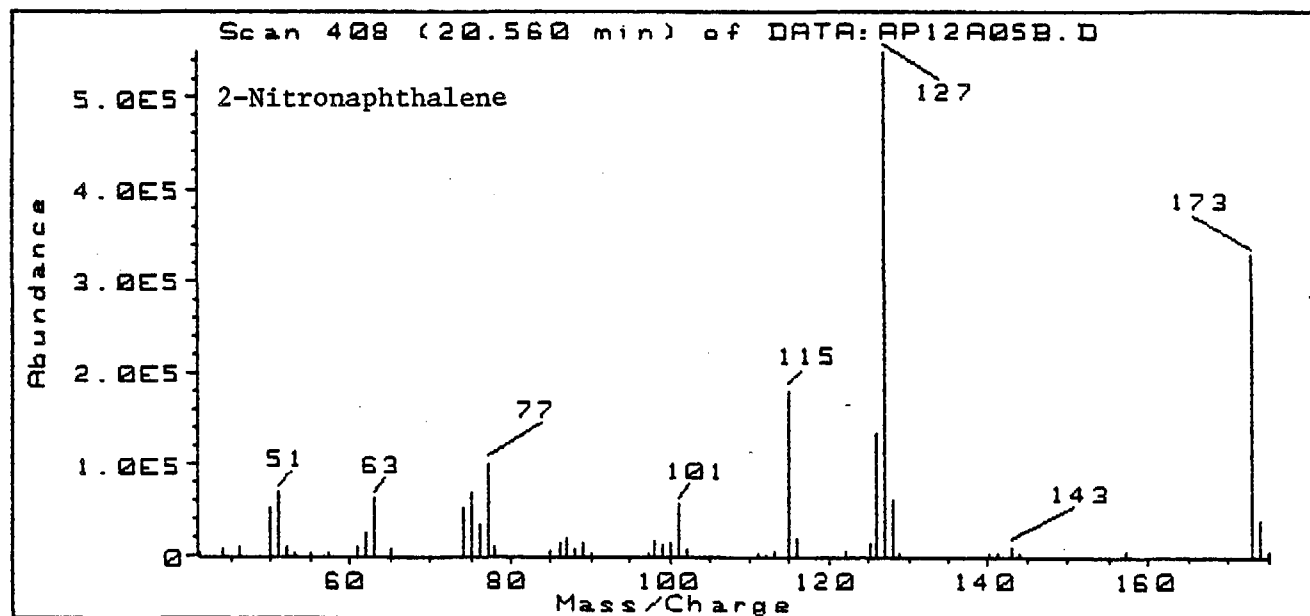
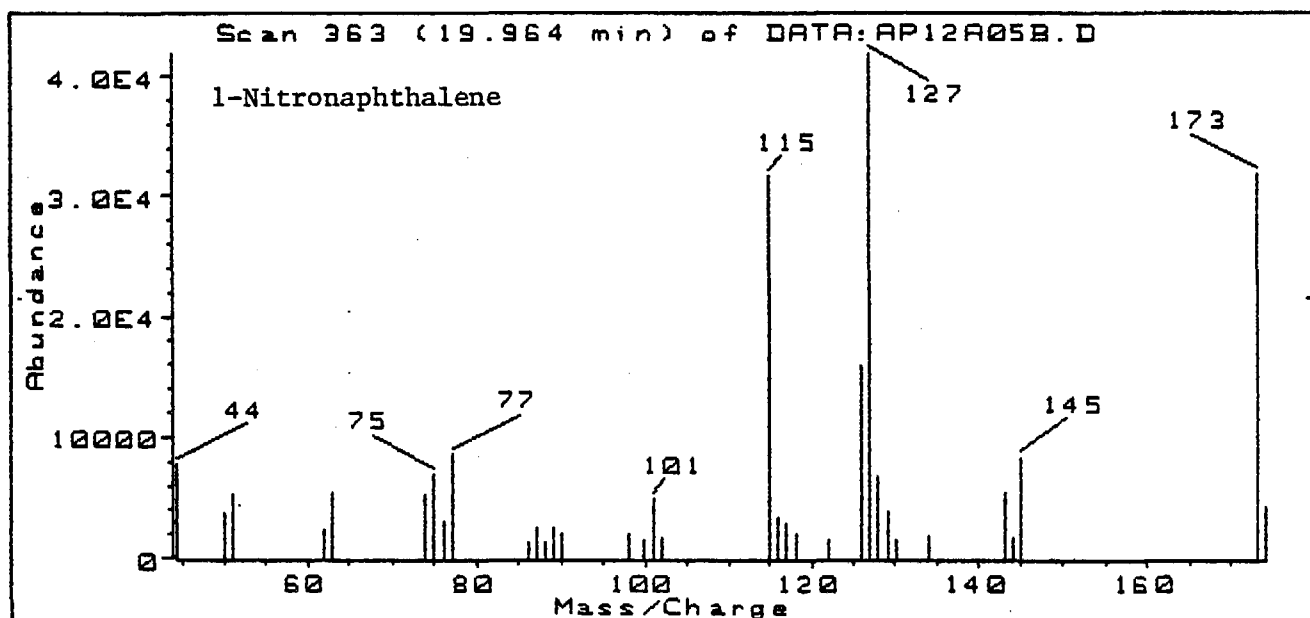
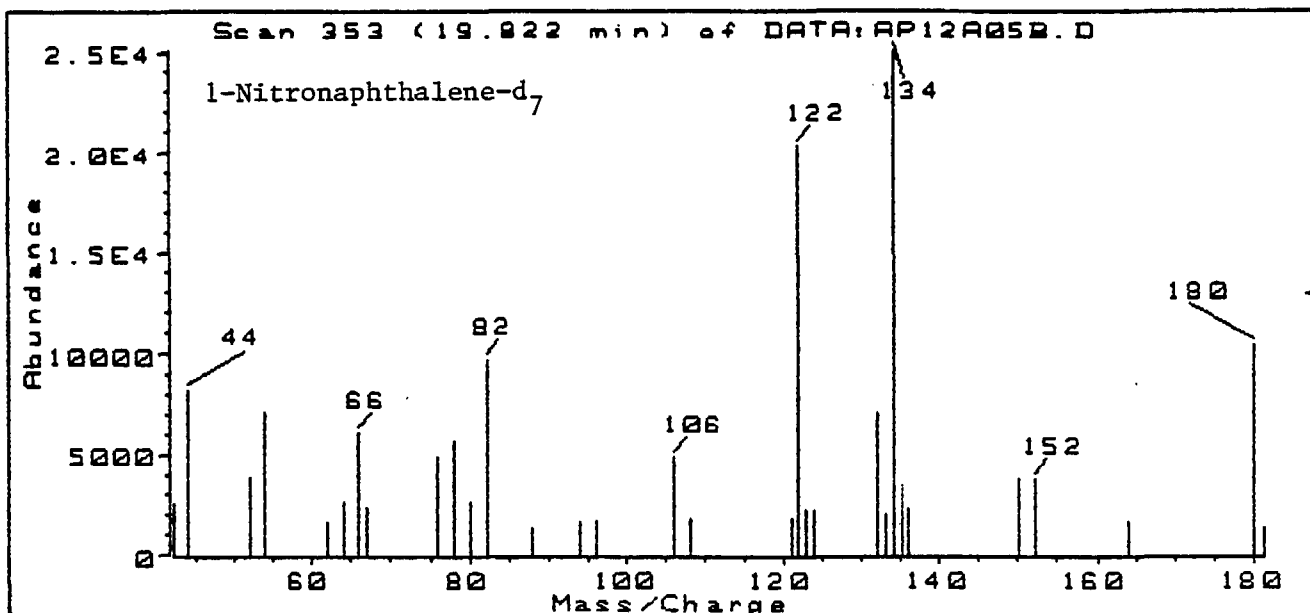
APPENDIX B

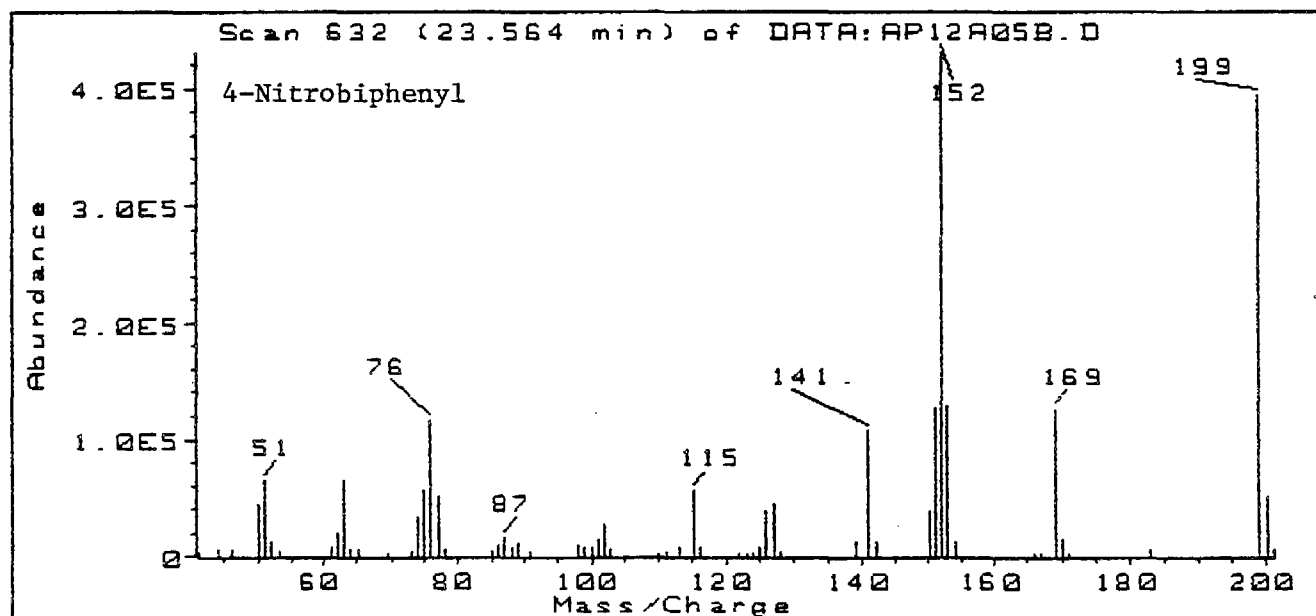
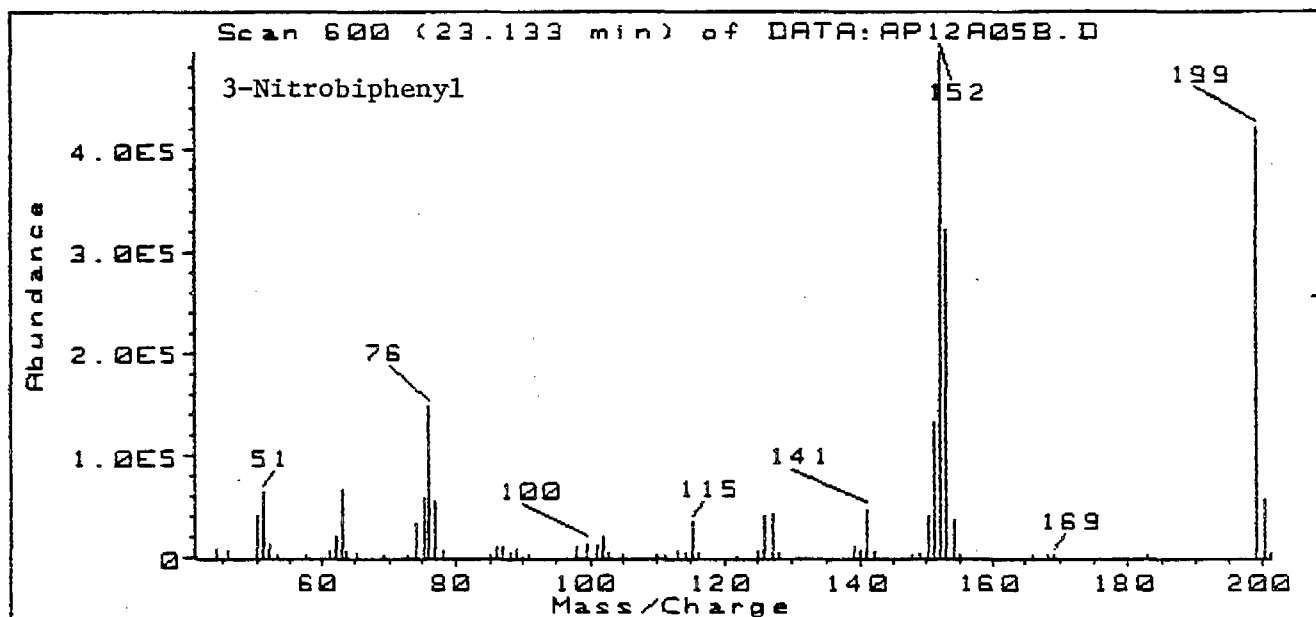
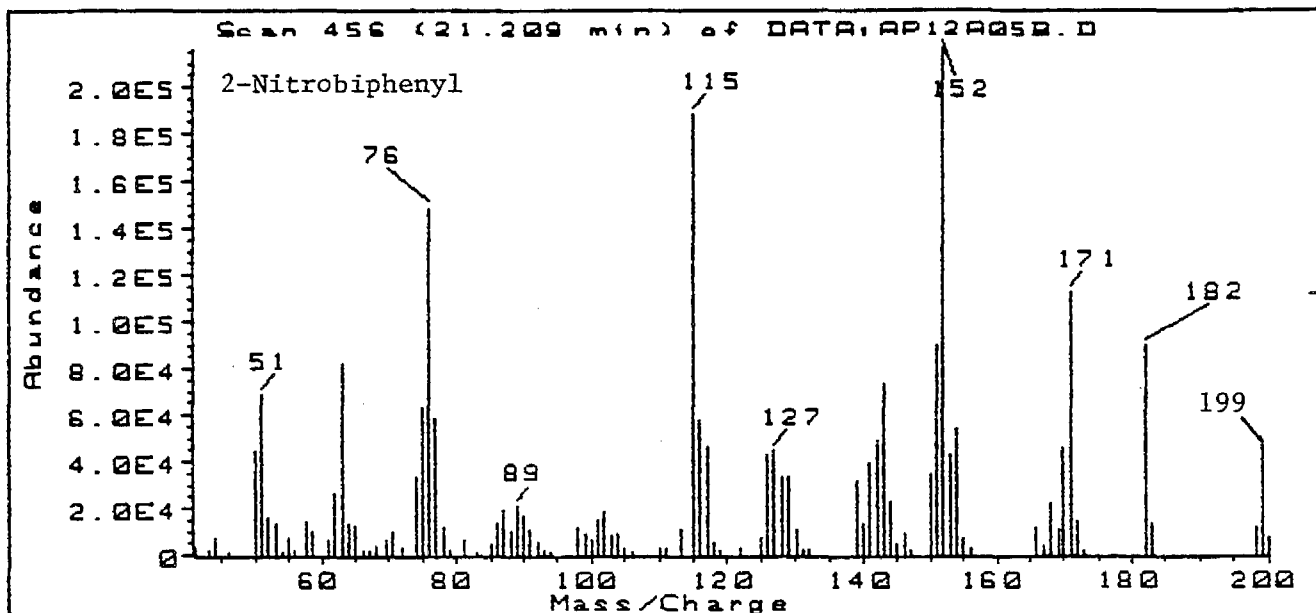
Electron Impact Mass Spectra of Nitroarenes

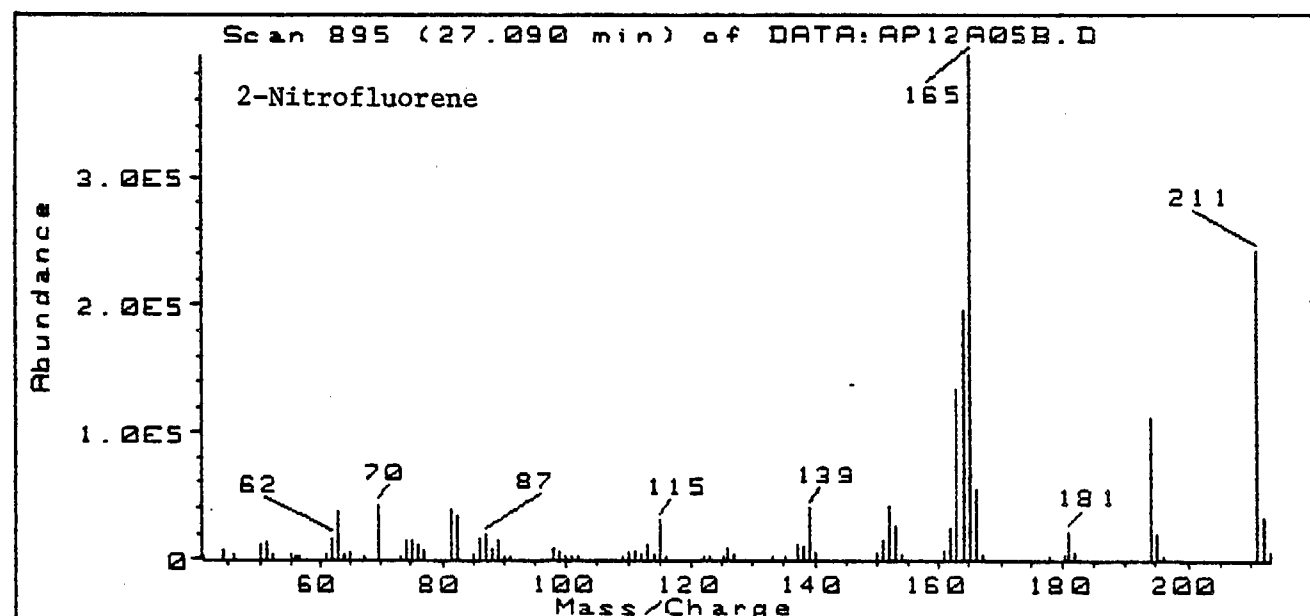
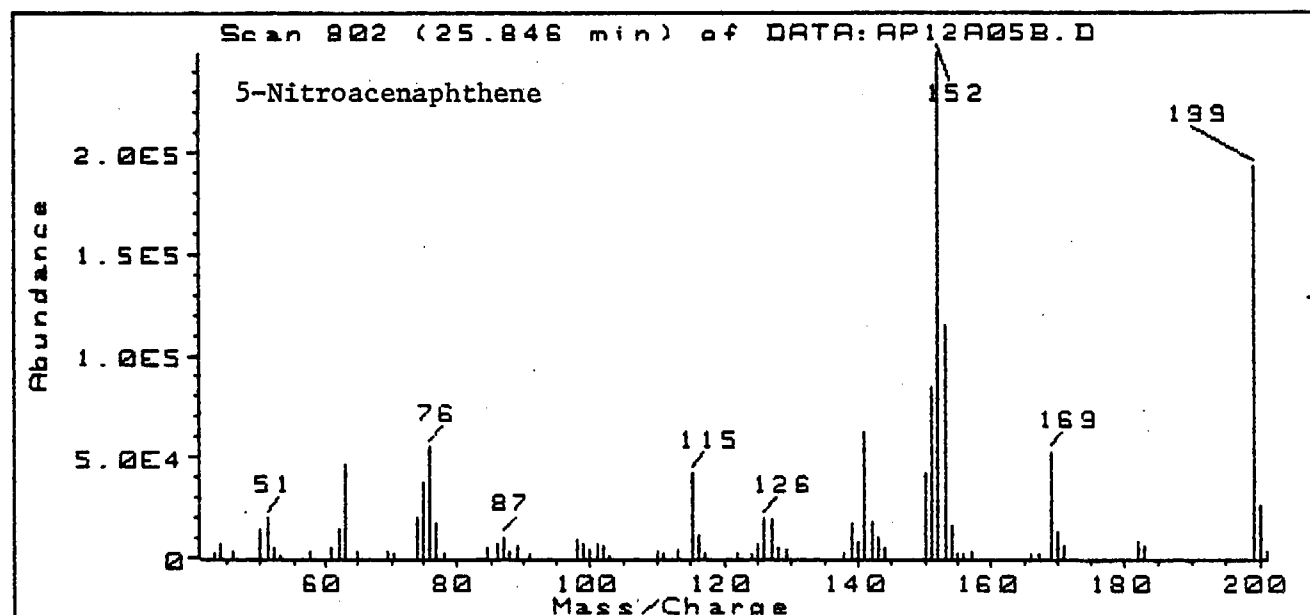
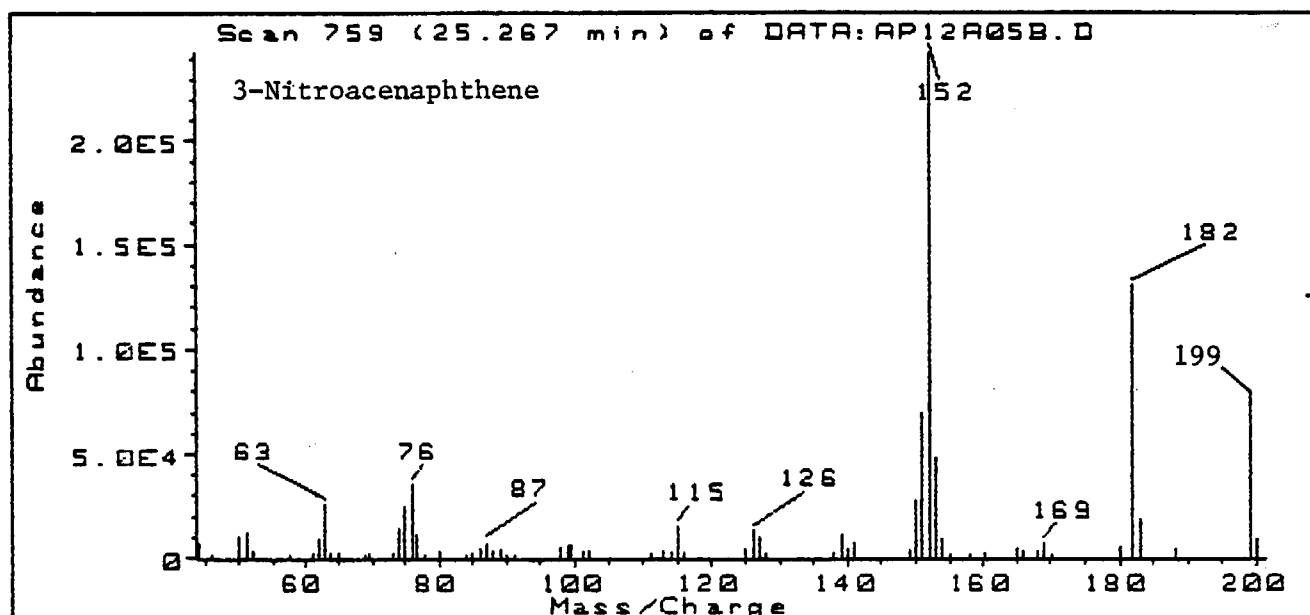
The mass spectra shown were recorded utilizing a Hewlett-Packard 5890 GC interfaced to a 5970 MSD. GC conditions were: ~50 m 5% PhMe Silicone fused-silica column (0.2 mm i.d., 0.33 μ m film thickness), splitless injection with injection port at 300°C, initial column temperature 50°C followed by programming at 8°C min⁻¹ to 340°C. The spectra shown are:

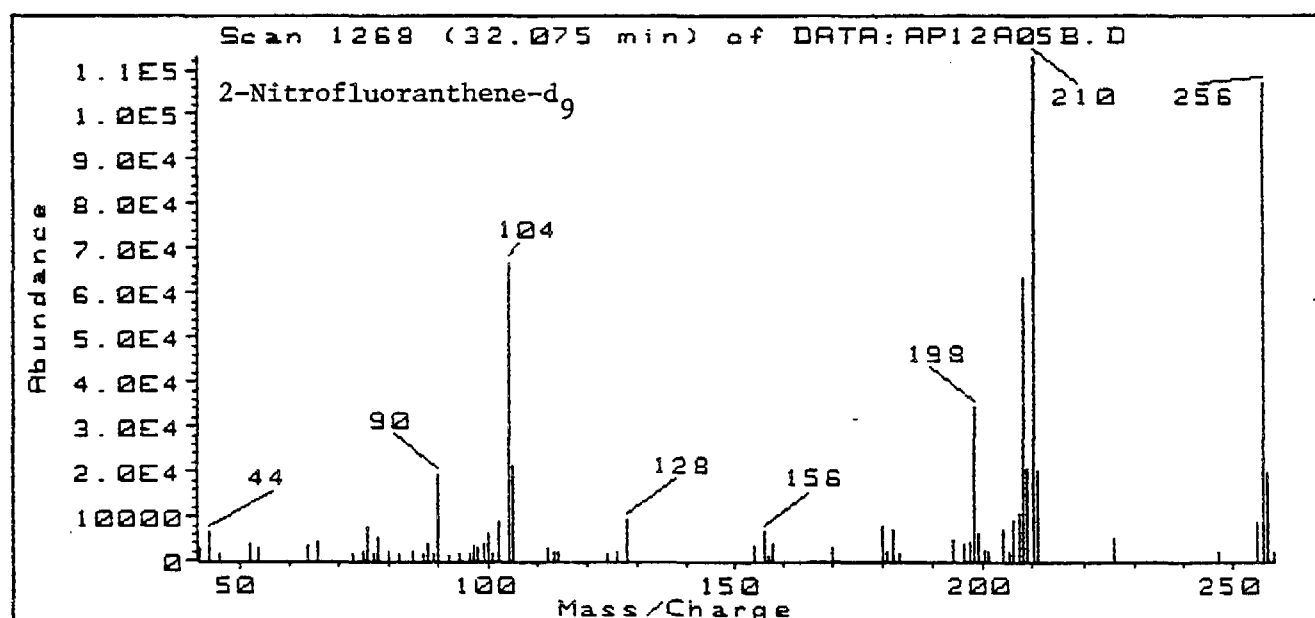
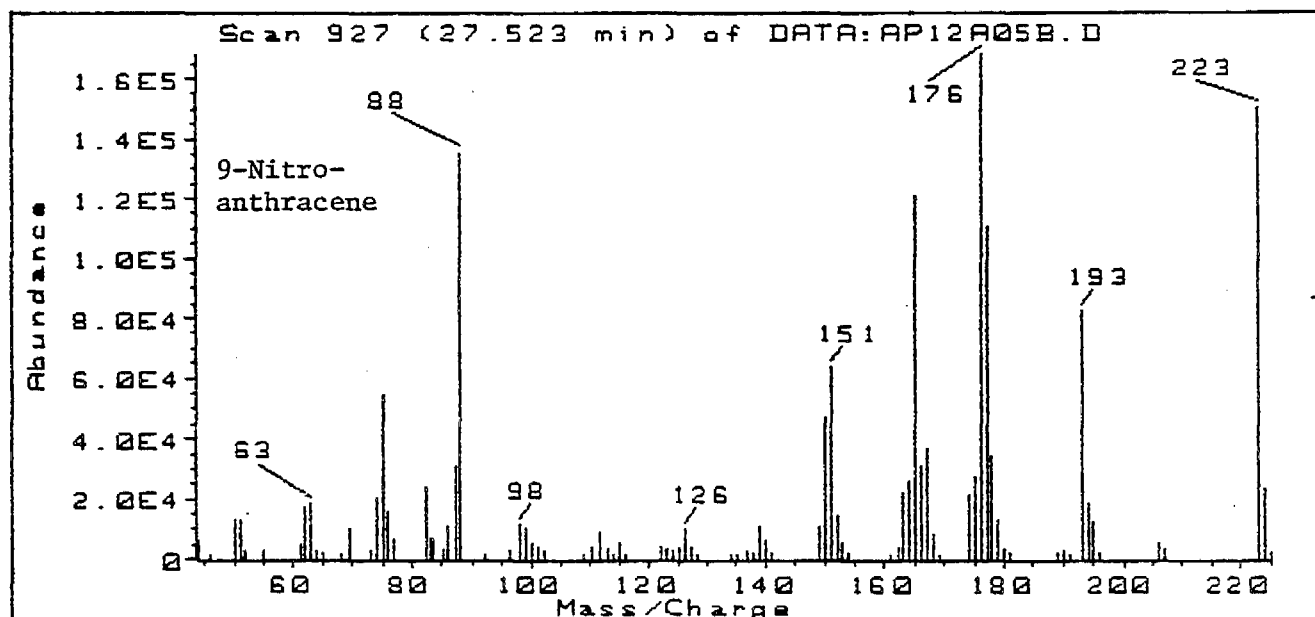
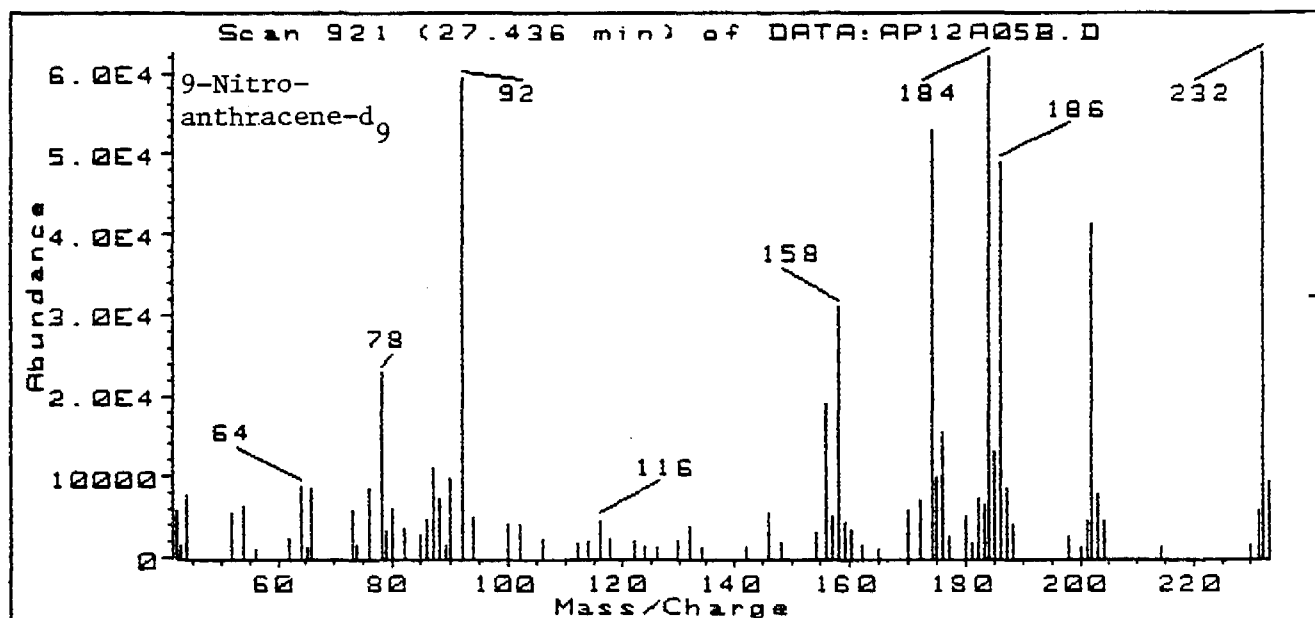
<u>Compound</u>	<u>Retention time (min)</u>
1-Nitronaphthalene-d ₇	19.8
1-Nitronaphthalene	20.0
2-Nitronaphthalene	20.6
2-Nitrobiphenyl	21.2
3-Nitrobiphenyl	23.1
4-Nitrobiphenyl	23.6
3-Nitroacenaphthene	25.3
5-Nitroacenaphthene	25.8
2-Nitrofluorene	27.1
9-Nitroanthracene-d ₉	27.4
9-Nitroanthracene	27.5
2-Nitrofluoranthene-d ₉	32.1
2-Nitrofluoranthene	32.2
1-Nitropyrene-d ₉	32.8
9-Nitrobenz[a]anthracene-d ₁₁ (tentative identification)	34.1
7-Nitrobenz[a]anthracene-d ₁₁	34.7
7-Nitrobenz[a]anthracene	34.8
6-Nitrochrysene-d ₁₁	35.5
6-Nitrochrysene	35.6
6-Nitrobenzo[a]pyrene-d ₁₁	38.9
6-Nitrobenzo[a]pyrene	39.0

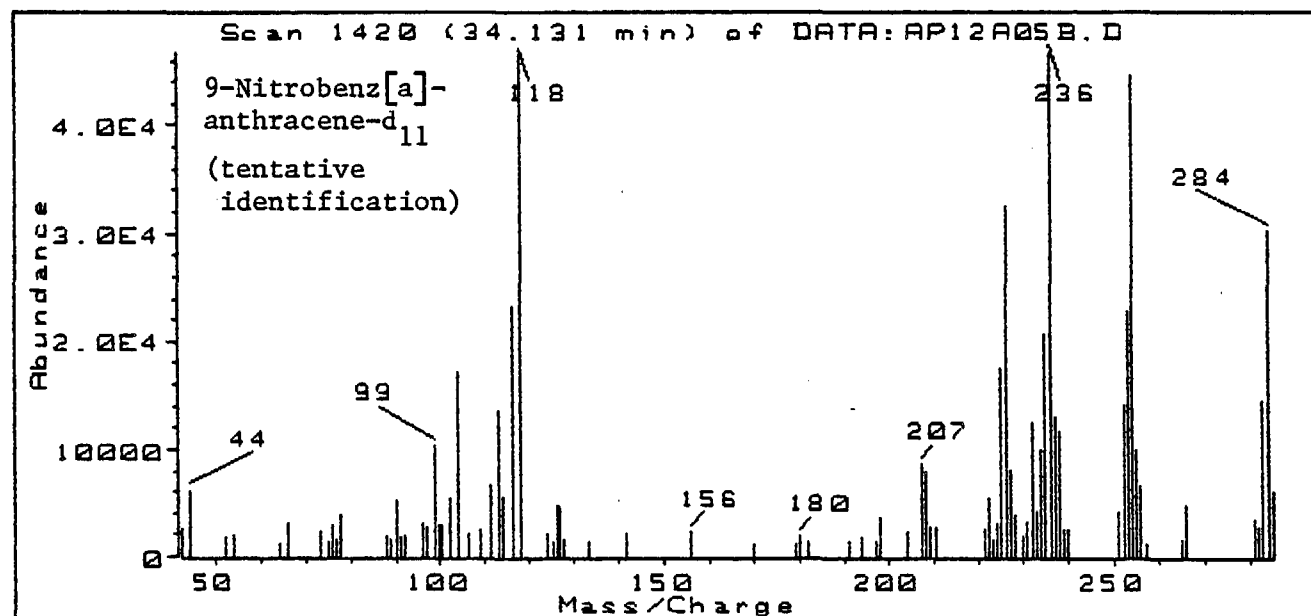
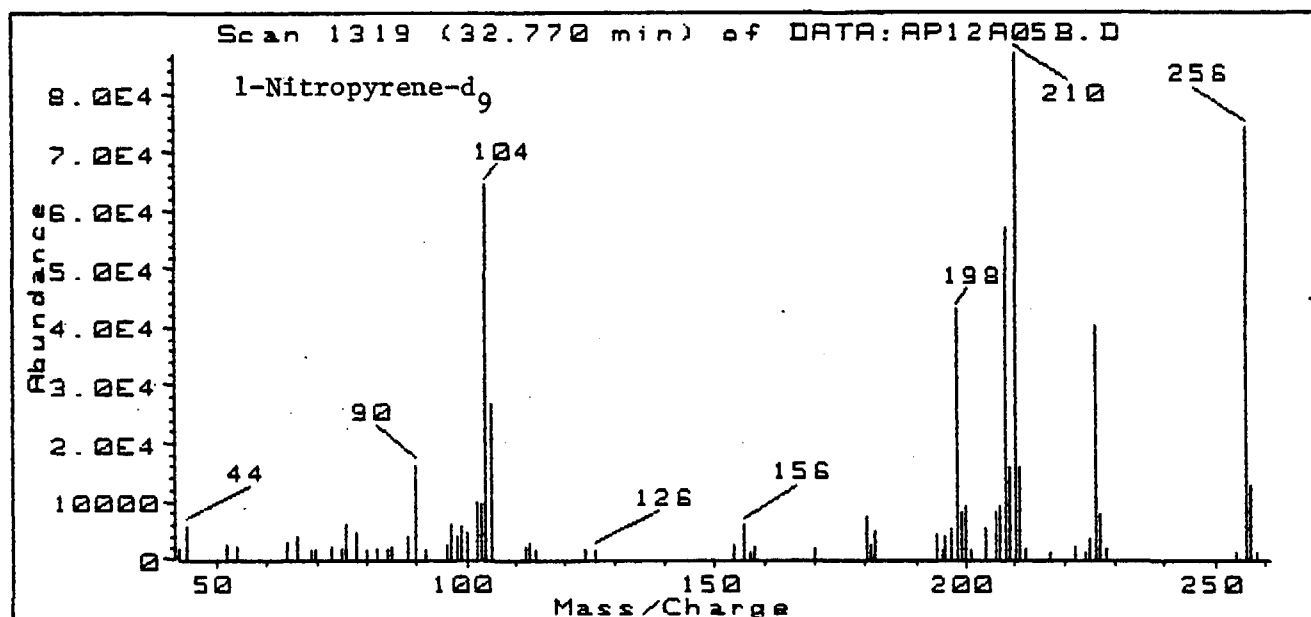
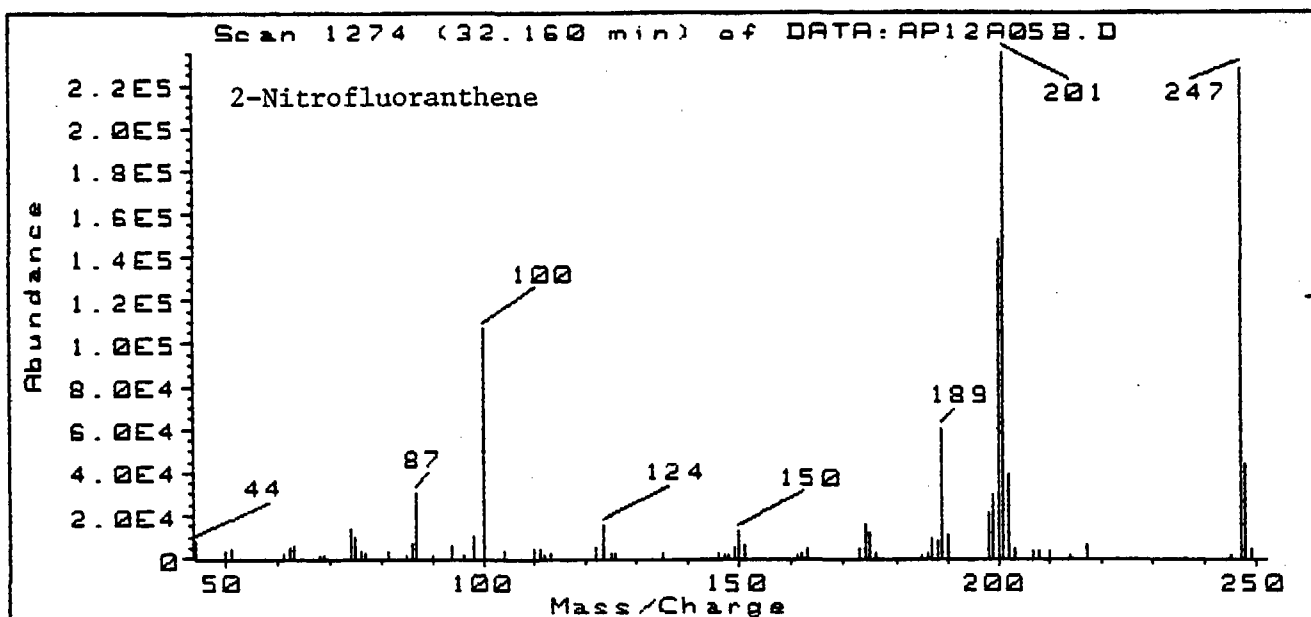
<u>Compound</u>	<u>Retention time (min)</u>
<u>Methylnitronaphthalenes</u>	
1-Methyl-2-nitronaphthalene	21.7
1-Methyl-3-nitronaphthalene	22.7
1-Methyl-4-nitronaphthalene	22.3
1-Methyl-5-nitronaphthalene	22.0
1-Methyl-6-nitronaphthalene	22.4
1-Methyl-8-nitronaphthalene	20.9
2-Methyl-1-nitronaphthalene	20.3
2-Methyl-3-nitronaphthalene	21.6
2-Methyl-4-nitronaphthalene	21.7
2-Methyl-5-nitronaphthalene	21.8
2-Methyl-6-nitronaphthalene	22.5
2-Methyl-8-nitronaphthalene	21.5

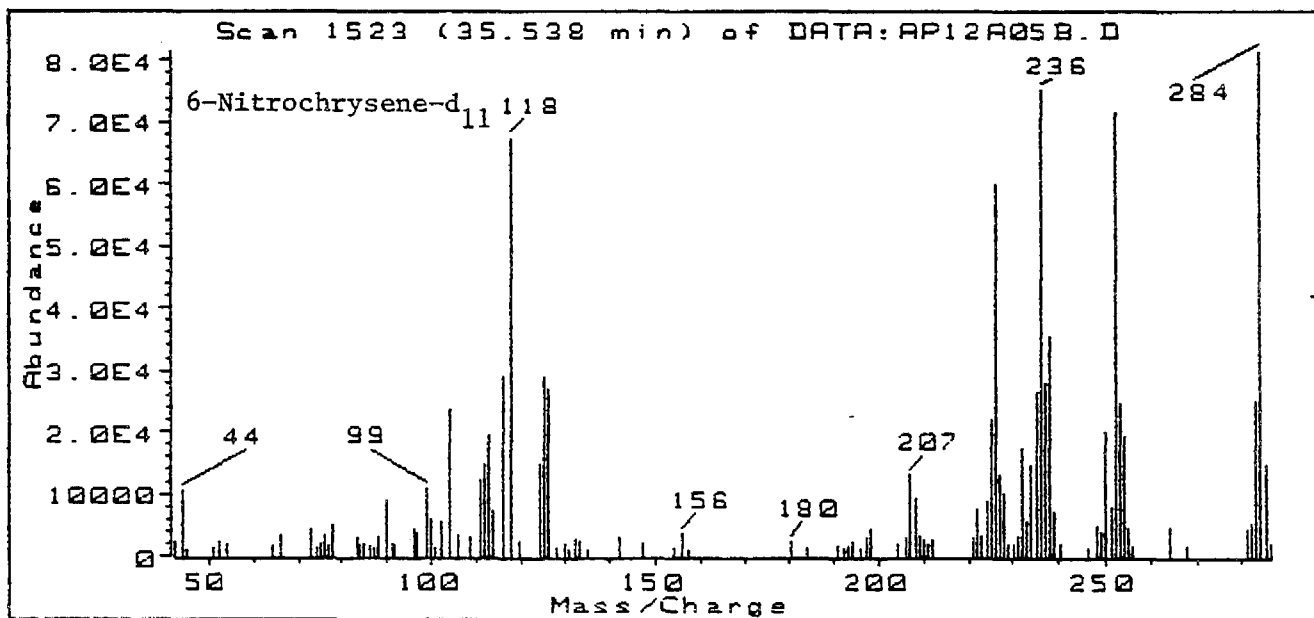
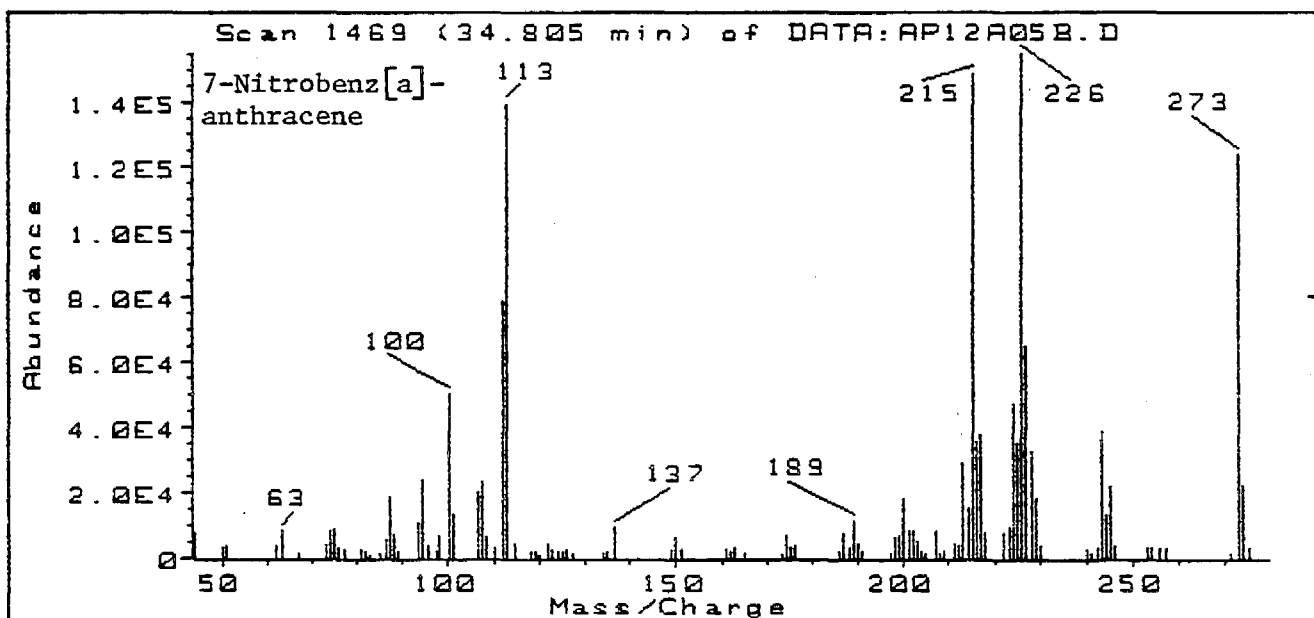
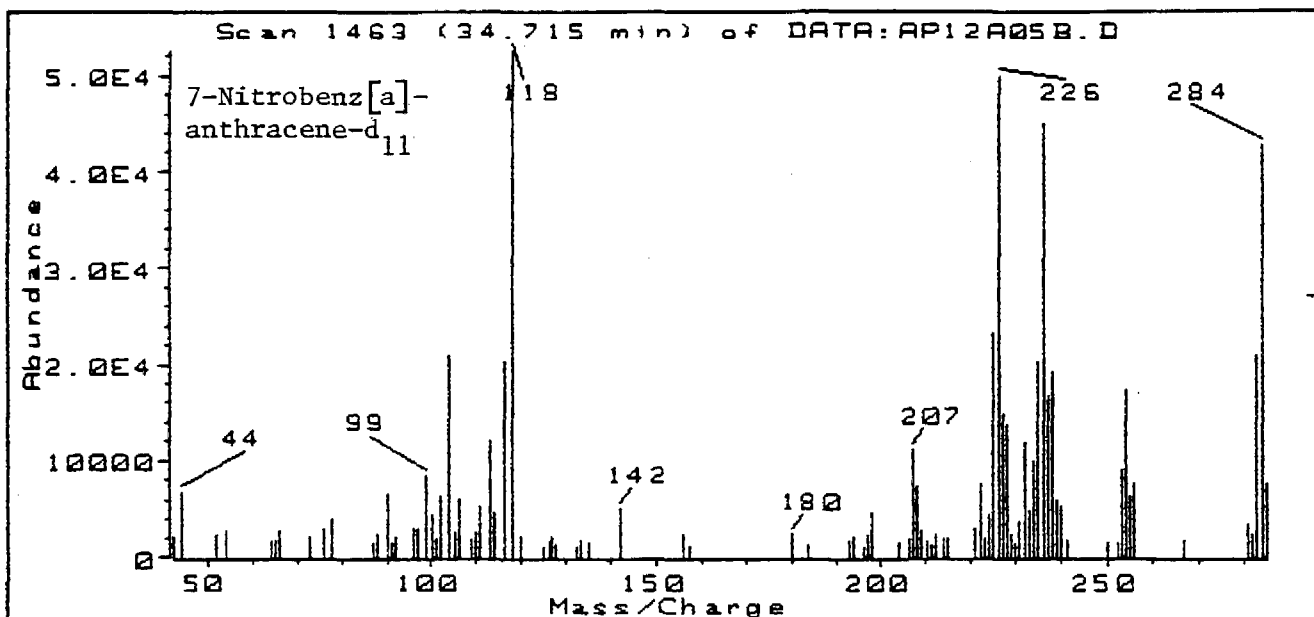


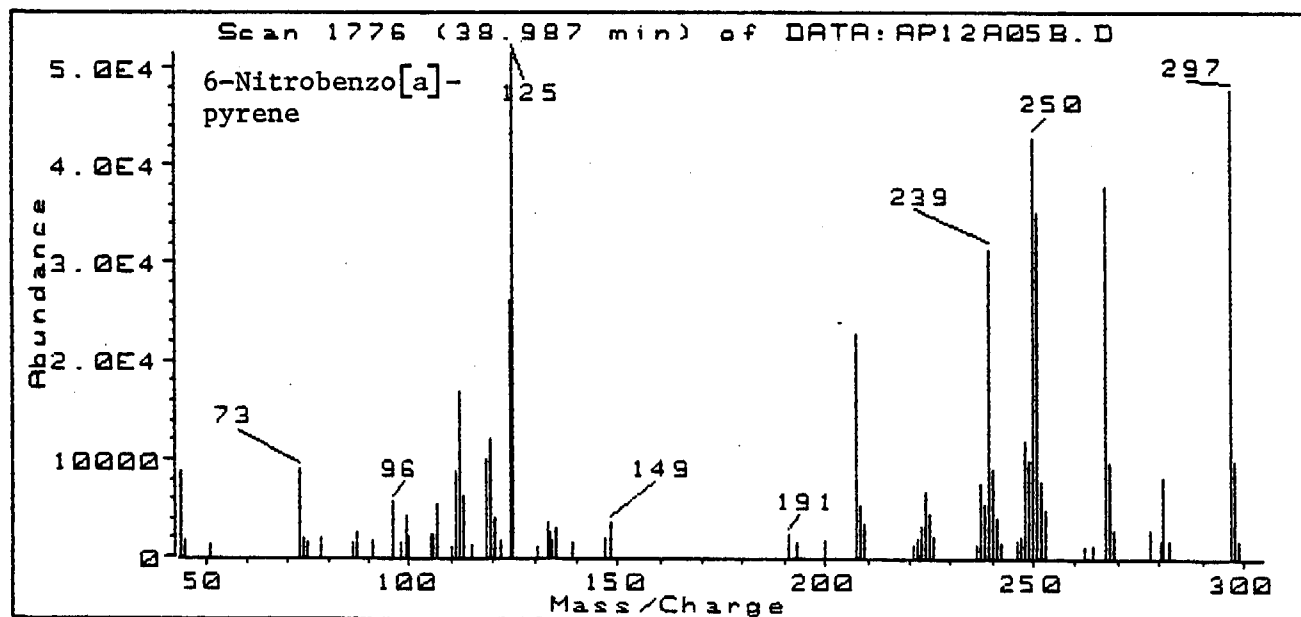
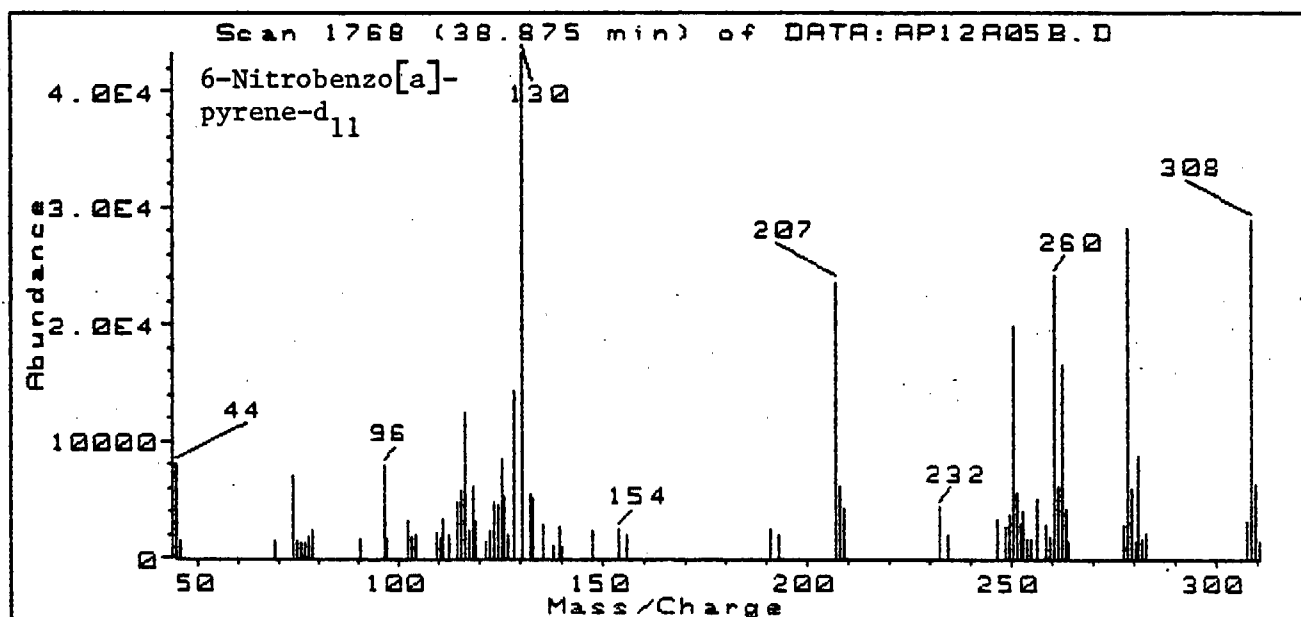
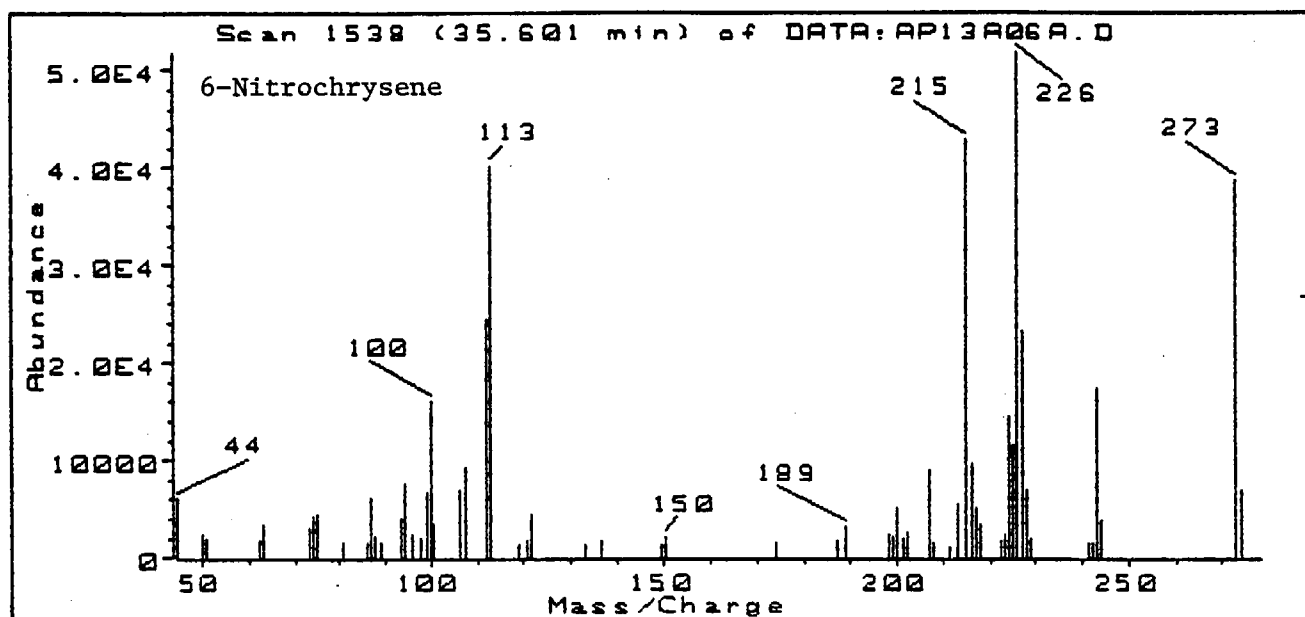


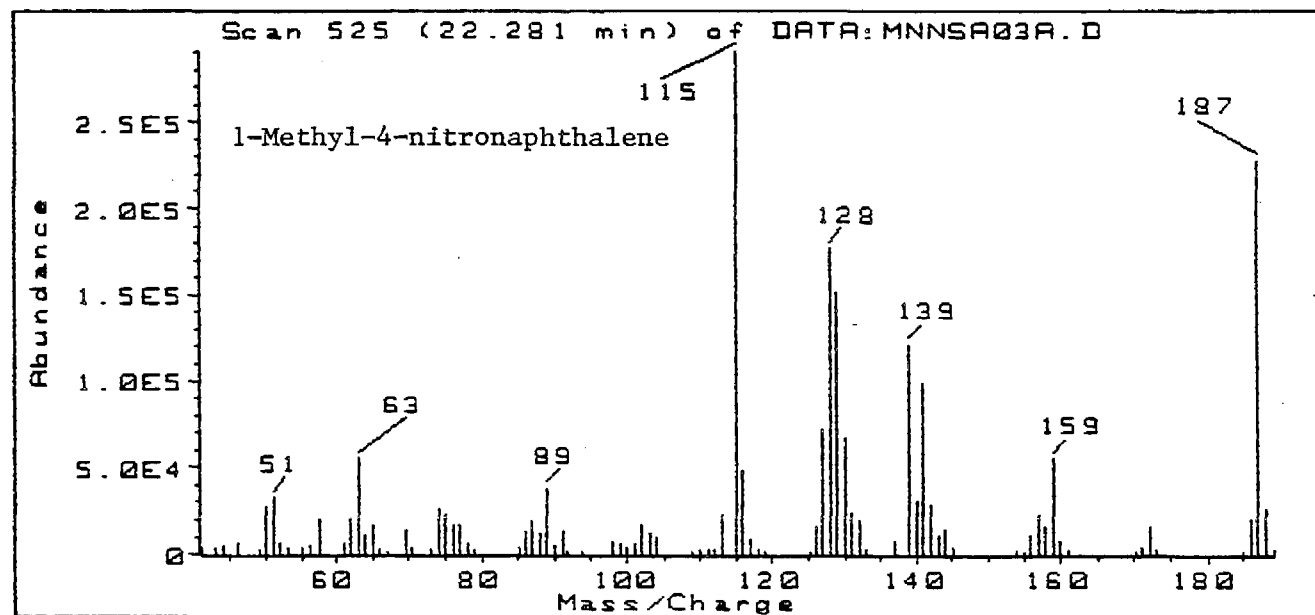
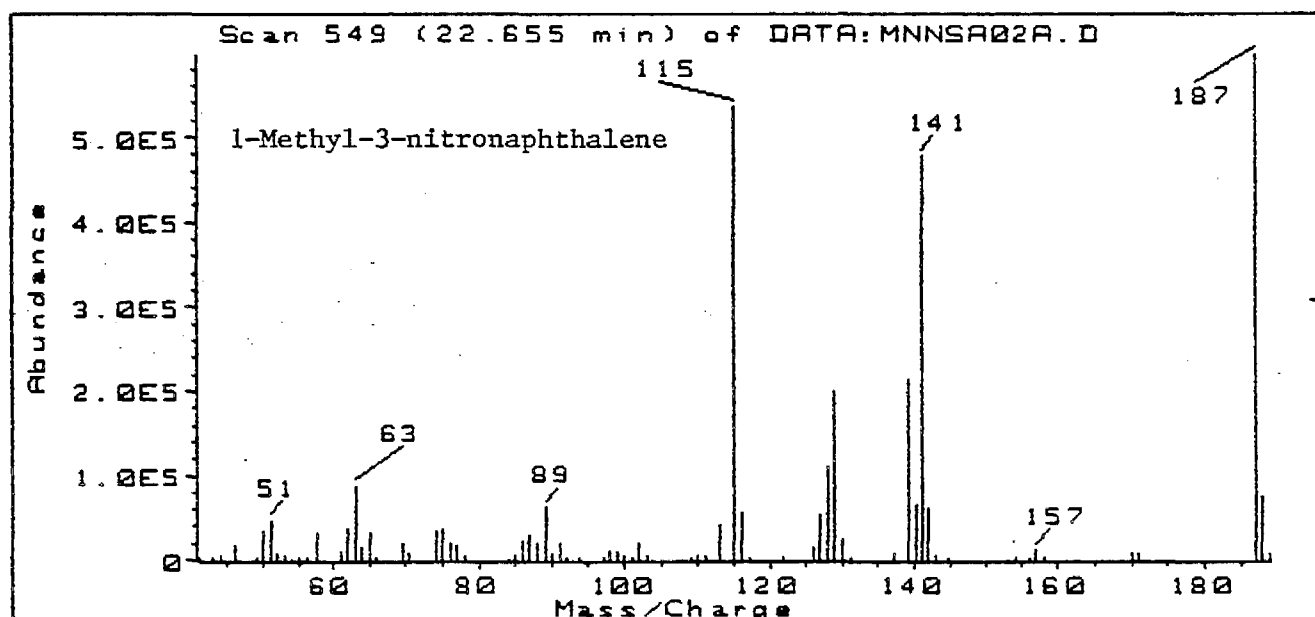
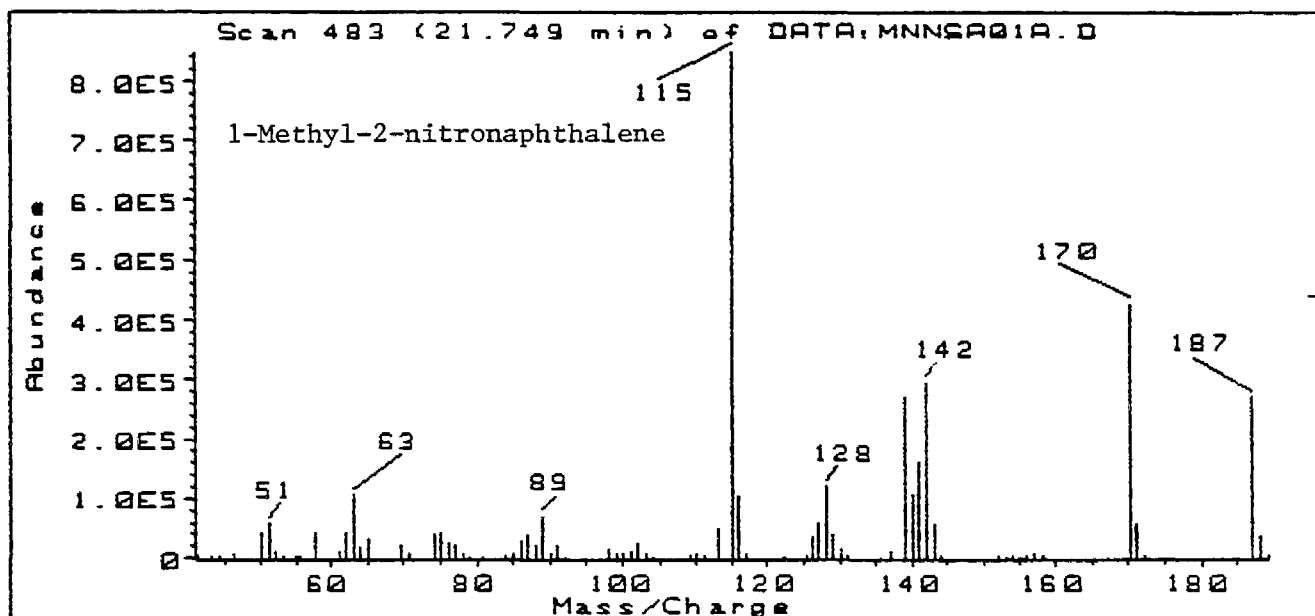


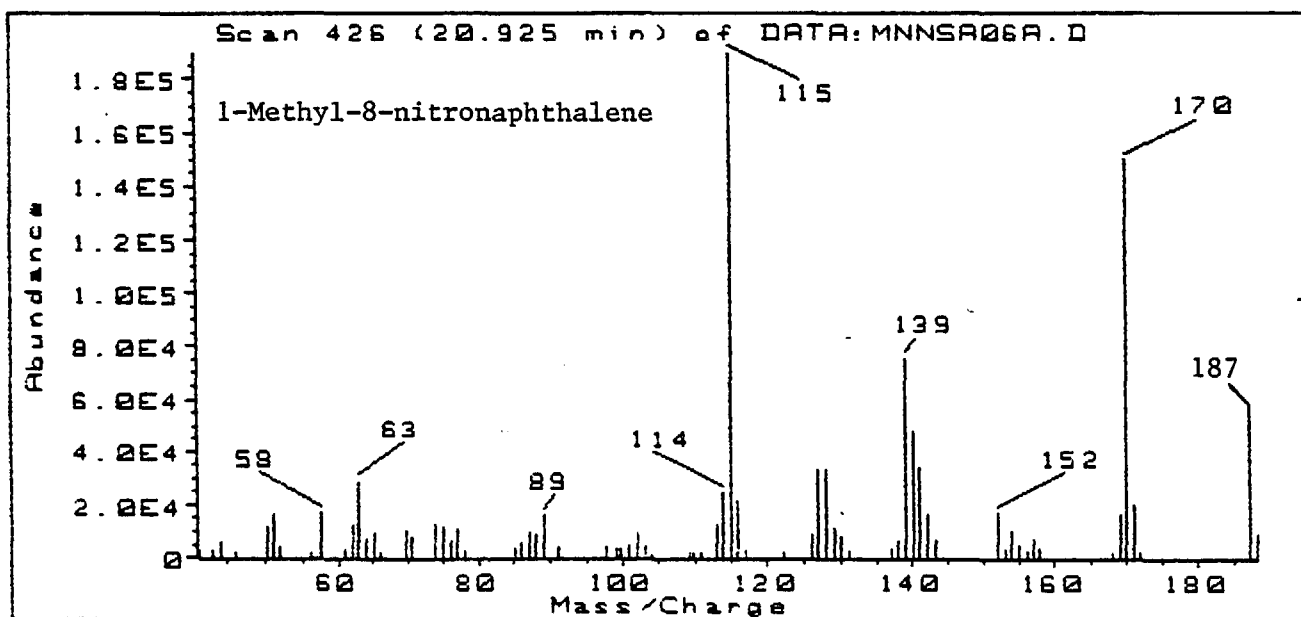
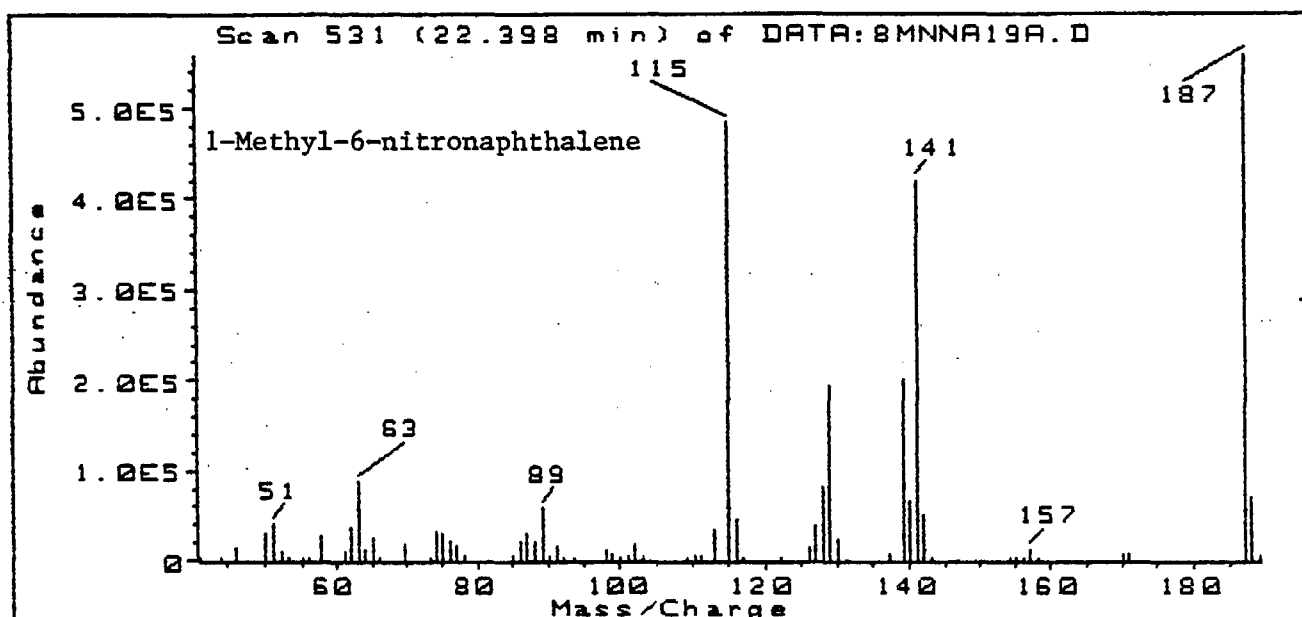
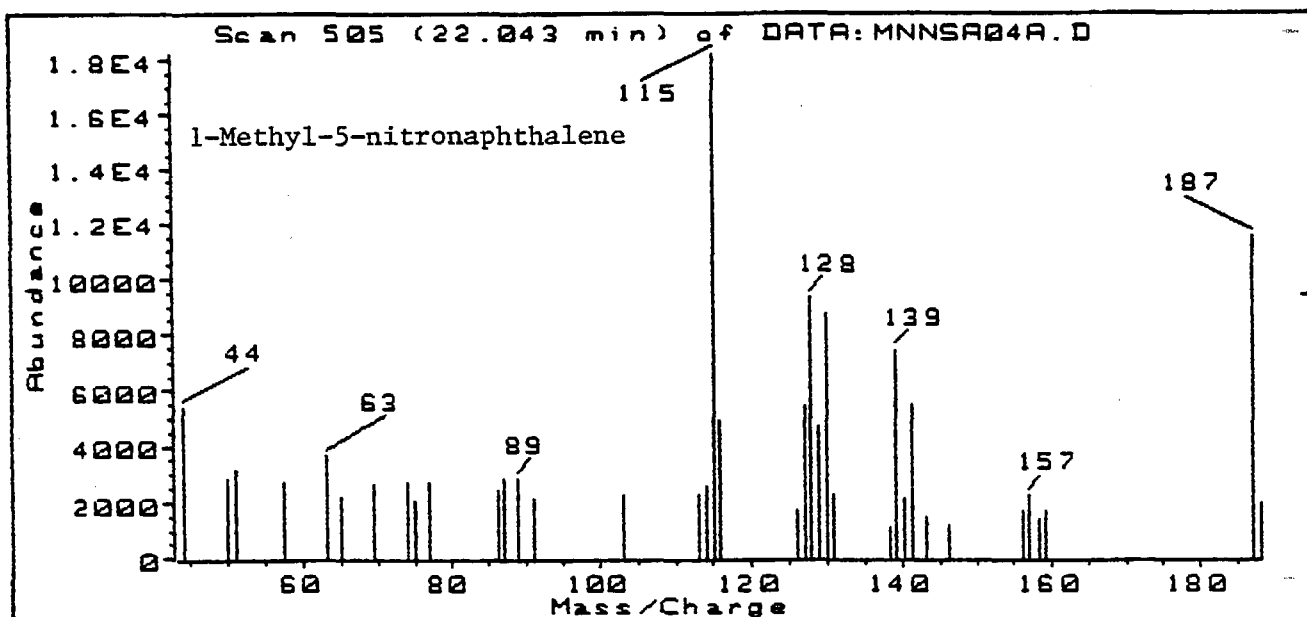


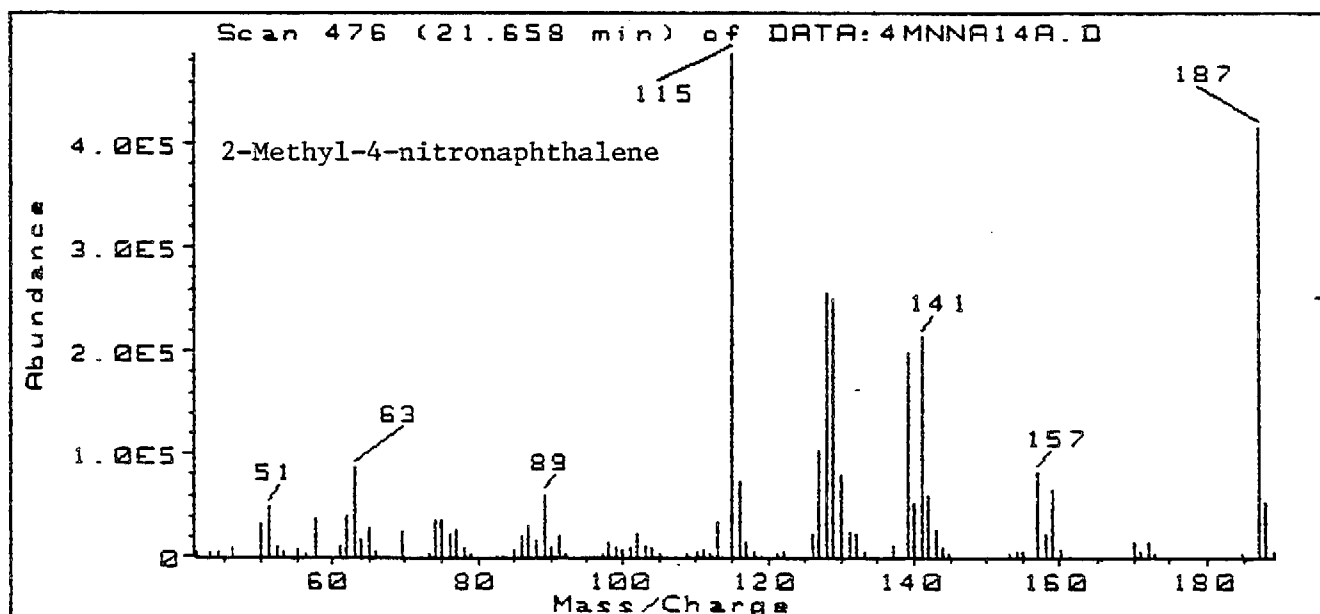
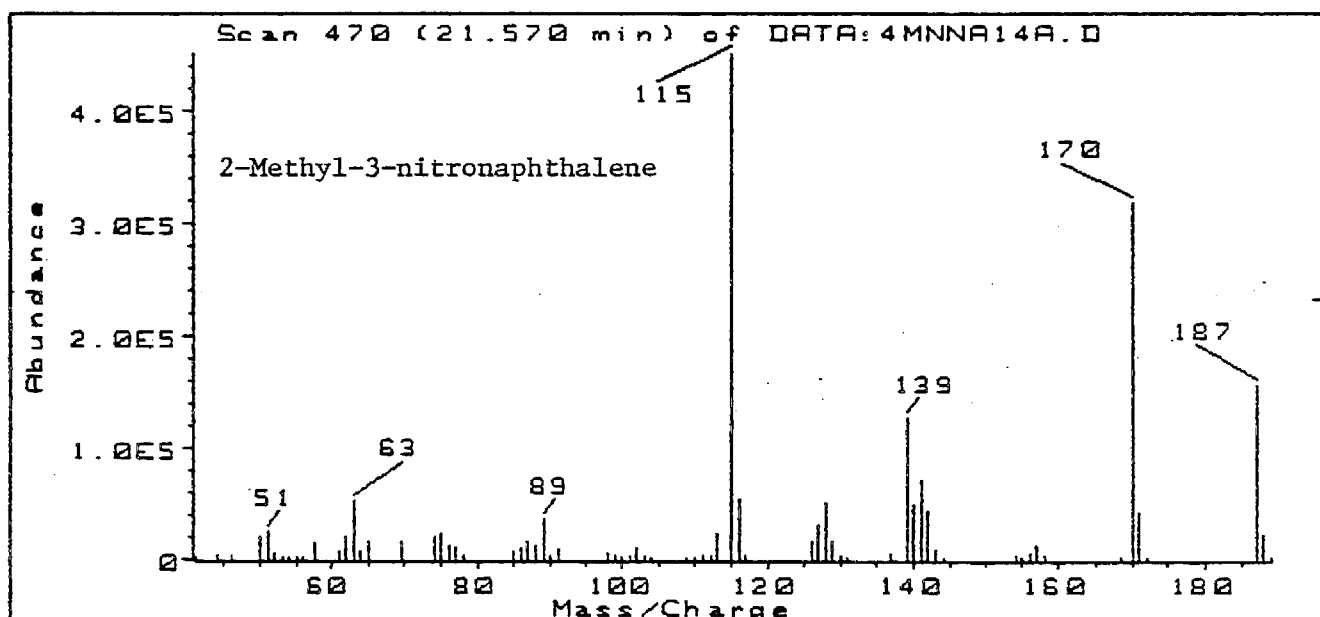
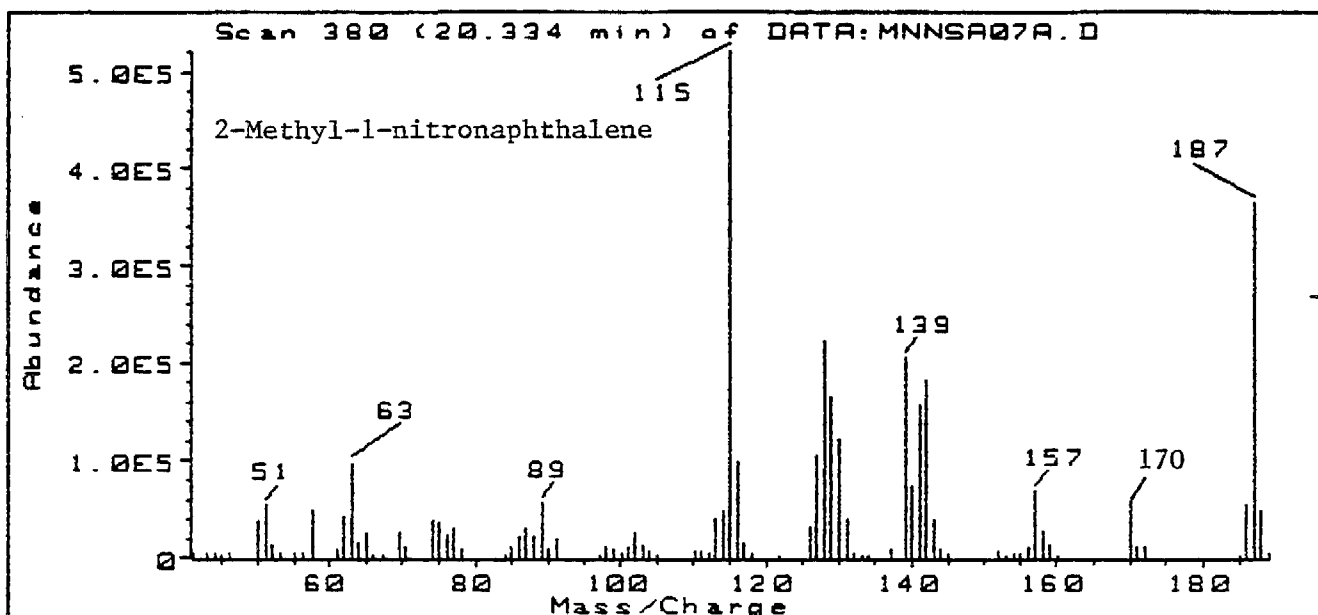


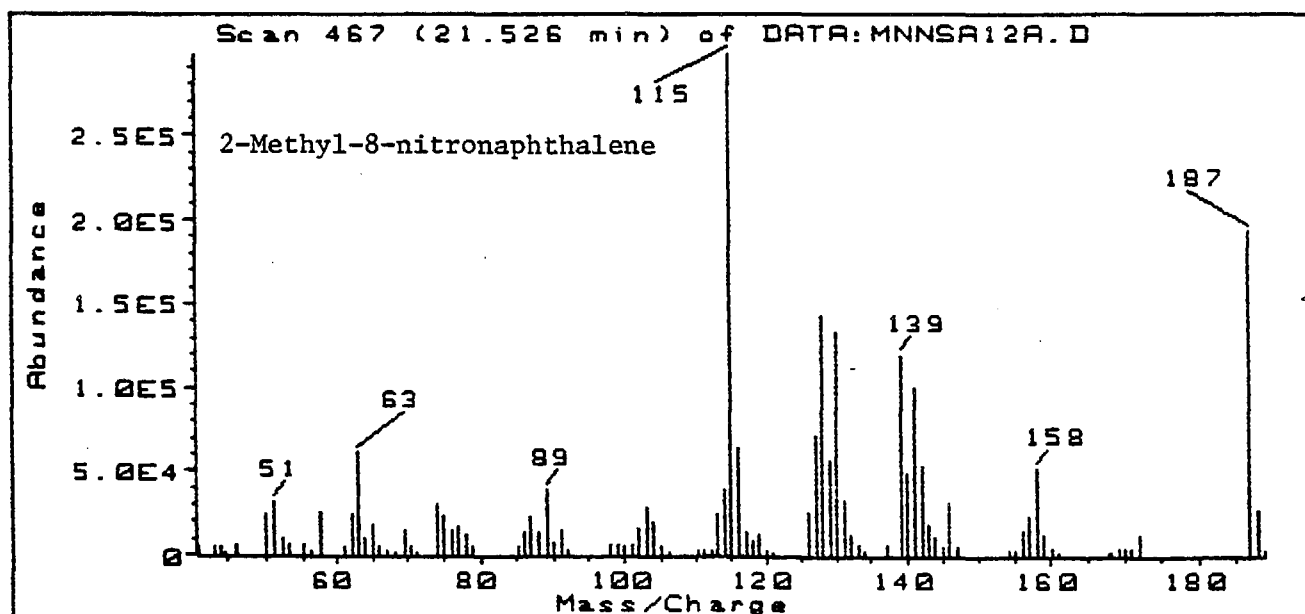
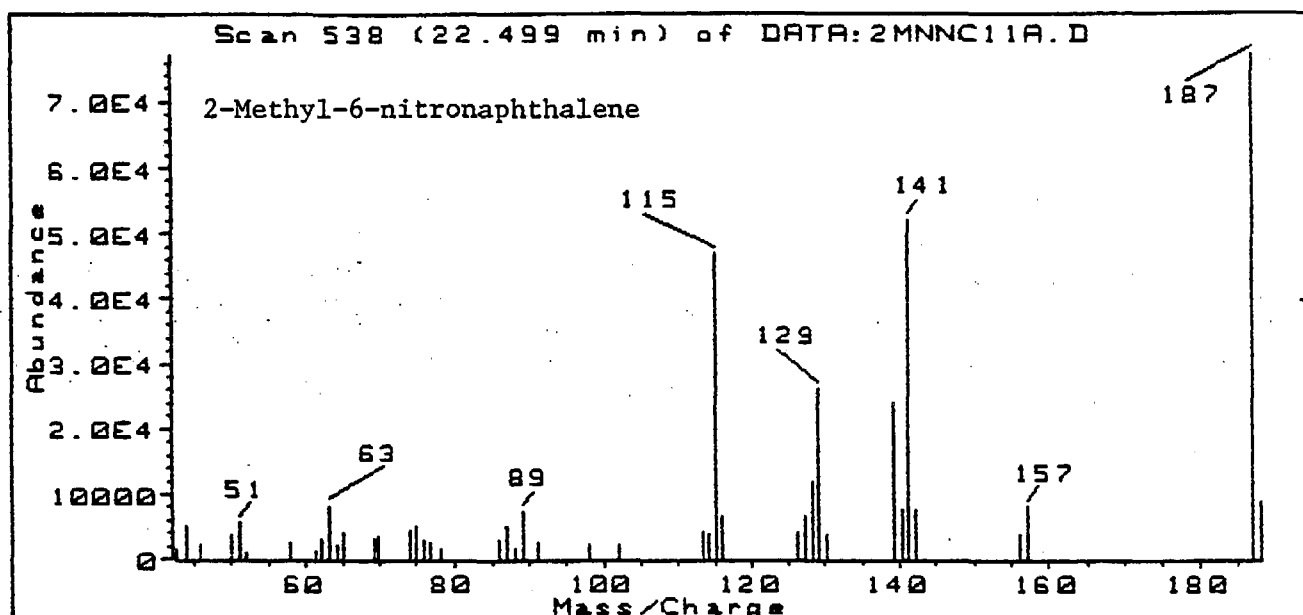
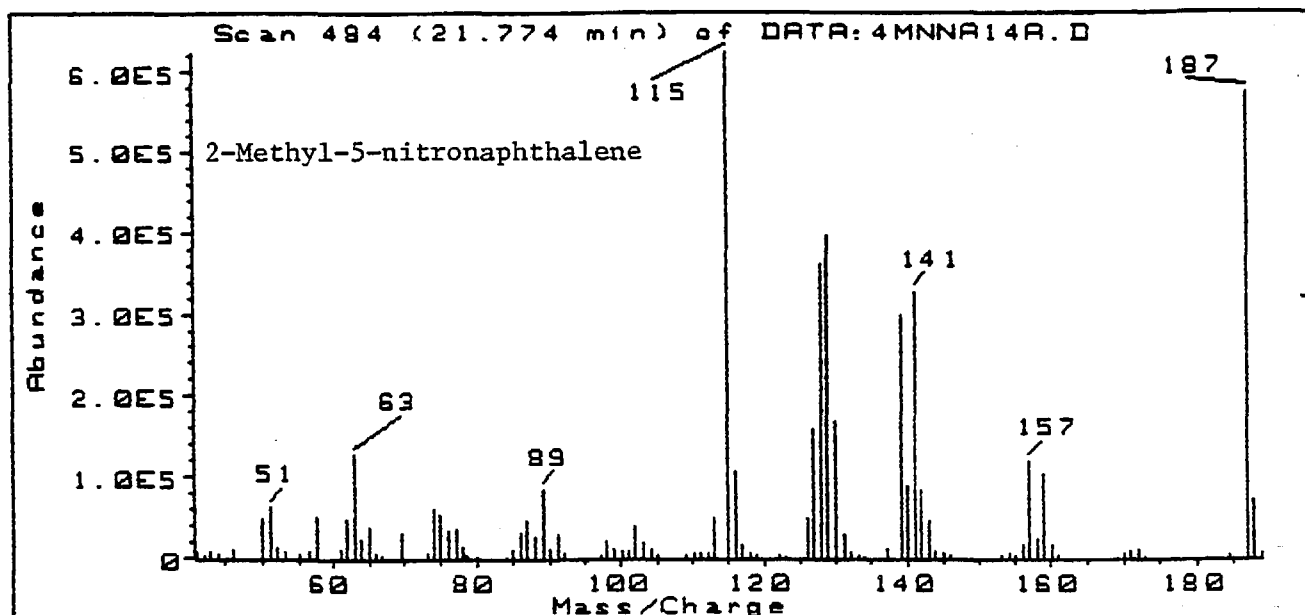












APPENDIX C

Data Tables for GC/MS/MID Quantifications

Table C-1 to C-7	Naphthalene (μg) Measured and Total Volume Sampled on Low-Flow Tenax at the Seven Sites.
Table C-8	PAH (ng m^{-3}) Measured on Low-Flow and High-Flow Tenax at Glendora.
Table C-9	PAH (μg) Measured and Total Volume Sampled on High-Flow Tenax at the Seven Sites.
Table C-10	PAH (ng m^{-3}) Measured and Total Volume Sampled on PUFs at Glendora (including Data on PUF #4).
Table C-11	PAH (μg) Measured and Total Volume Sampled on PUFs at the Seven Sampling Sites.
Table C-12	Nitroarenes (μg) Measured and Total Volume Sampled on PUFs at the Seven Sampling Sites.
Table C-13	Nitroarenes (μg) Measured and Total Volume Sampled on PUFs at Glendora (including Data on PUF #4).
Table C-14	PAH (μg) of M.W. 202-234 Measured on TIGF Filters at the Seven Sampling Sites and San Nicolas Island.
Table C-15	PAH (μg) of M.W. 252 Measured on TIGF Filters at the Seven Sampling Sites and San Nicolas Island.
Table C-16	PAH (μg) of M.W. 276-300 Measured on TIGF Filters at the Seven Sampling Sites.
Table C-17	Nitrofluoranthenes and Nitropyrenes (μg) Measured on TIGF Filters at the Seven Sampling Sites and San Nicolas Island.
Table C-18	Nitronaphthalenes, 9-Nitroanthracene and 7-Nitrobenz-[a]anthracene (μg) Measured on TIGF Filters at the Seven Sampling Sites.

Table C-1. Naphthalene (μg) Measured and Total Volumes Sampled on Low-Flow Tenax at Glendora, CA, August 1986 (Day, 0800-2000 PDT; Night, 2000-0800 PDT)

Date		Total Volume m^3	μg^a
8/12/86	Day	0.66	1.51 1.41
8/12-13/86	Night	0.56	2.86 2.70
8/13/86	Day	0.52	1.31 1.21
8/13-14/86	Night	0.54	2.65 2.53
8/14/86	Day	0.66	1.67 1.61
8/14-15/86	Night	0.66	2.00 1.95
8/15/86	Day	0.61	1.71 1.69
8/15-16/86	Night	0.52	2.16 2.06
8/16/86	Day	0.47	1.53 1.44
8/16-17/86	Night	0.57	2.01 1.90
8/17/86	Day	0.66	1.37 1.26
8/17-18/86	Night	0.63	2.76 2.60
8/18/86	Day	0.52	2.20 1.99
8/18-19/86	Night	0.59	2.49 2.38

(continued)

Table C-1 (continued) - 2

Date		Total Volume m ³	µg ^a
8/19/86	Day	0.59	2.55
			2.58
8/19-20/86	Night	0.52	2.05
			1.93
8/20/86	Day	0.49	2.04
			1.95
8/20-21/86	Night	0.45	2.75
			2.78

^aValues given are for replicate injections on GC/MS.

Table C-2. Naphthalene (μg) Measured and Total Volumes Sampled on Low-Flow Tenax at Yuba City, CA, October 1986 (Day, 0700-1900 PDT; Night, 1900-0700 PDT)

Date		Total Volume m^3	μg^a
10/16/86	Day	0.96	0.21 0.22
10/16-17/86	Night	0.99	0.07 0.06
10/17/86	Day (0700-1700) ^b	0.89	0.08 0.08
10/18/86	Day	0.63	0.11 0.10
10/18-19/86	Night	1.01	0.07 0.08
10/20/86	Day (0900-1900) ^b	0.56	0.03 0.03
10/20-21/86	Night	1.06	0.72 0.71
10/21/86	Day	0.97	1.08 1.09
10/21-22/86	Night	0.95	2.20 2.30
10/23/86	Day (0900-1620) ^b	0.50	0.14 0.15
10/23-24/86	Night (2345-0730) ^b	0.70	0.07 0.08
10/25/86	Day (1000-1700) ^b	0.35	0.06 0.08

^aValues given are for replicate injections on GC/MS.

^bWeather conditions necessitated shortened sampling interval as indicated.

Table C-3. Naphthalene (μg) Measured and Total Volumes Sampled on Low-Flow Tenax at Concord, CA, December 1986 and January 1987 (Day, 0500-1700 PST; Night, 1700-0500 PST)

Date		Total Volume m^3	μg^a
12/6-7/86	Night (2045-0500) ^b	0.71	3.28 3.22
12/7/86	Day	0.65	0.57 0.55
12/7-8/86	Night	0.45	1.33 1.30
12/8/86	Day	0.65	0.85 0.84
12/8-9/86	Night	0.56	1.36 1.36
12/9/86	Day	0.38	0.38 0.38
12/10-11/86	Night	0.66	1.20 1.19
12/12/86	Day	1.22	0.74 0.74
1/13/87	Day (0930-1700) ^b	0.34	0.16 0.16
1/13-14/87	Night (1815-0500) ^b	0.51	0.69 0.68
1/14/87	Day	0.56	0.59 0.58
1/14-15/87	Night	0.58	0.26 0.25
1/17-18/87	Night	0.75	2.07 2.01
1/18/87	Day	0.40	0.41 0.39

(continued)

Table C-3 (continued) - 2

Date		Total Volume m ³	ug ^a
1/18-19/87	Night	0.67	1.04
			1.01
1/19/87	Day	0.59	0.69
			0.68
1/21/87	Day	0.54	0.32
			0.32
1/21-22/87	Night	0.59	1.37
			1.36
1/22/87	Day (0500-1600) ^b	0.74	0.67
			0.67

^aValues given are for replicate injections on GC/MS.

^bSampling interval less than 12-hr as indicated.

Table C-4. Naphthalene (μg) Measured and Total Volumes Sampled on Low-Flow Tenax at Mammoth Lakes, CA, February 1987 (Day, 0500-1700 PST; Night, 1700-0500 PST)

Date		Total Volume m^3	μg^a
2/14/87	Day	0.41	0.57 0.59
2/14-15/87	Night (1700-2400) ^b	0.24	0.16 0.21
2/15-16/87	Night	0.93	0.78 0.80
2/16/87	Day	0.70	0.37 0.41
2/16-17/87	Night	0.48	0.64 0.65
2/17/87	Day	0.52	0.24 0.28
2/17-18/87	Night	0.69	0.60 0.61
2/18/87	Day (0500-1000) ^b	0.32	0.15 0.21
2/20-21/87	Night	0.87	1.21 1.16
2/21/87	Day	0.69	0.39 0.42
2/21-22/87	Night	0.45	0.16 0.21
2/22/87	Day	0.53	0.23 0.28
2/22-23/87	Night	0.87	0.08 0.14
2/25-26/87	Night (1800-0500) ^c	0.39	0.08 0.14

(continued)

Table C-4 (continued) - 2

Date		Total Volume m ³	µg ^a
2/26/87	Day	0.44	0.23
			0.28
2/27-28/87	Night	0.68	0.67
			0.68
2/28/87	Day	0.61	0.49
			0.52
2/28-3/1/87	Night	0.44	0.64
			0.64

^aValues given are for replicate injections on GC/MS.

^bSampling interval shortened due to snow.

^cSampling interval less than 12-hr as indicated.

Table C-5. Naphthalene (μg) Measured and Total Volumes Sampled on Low-Flow Tenax at Oildale, CA, March and April 1987 (Day, 0600-1800 PST; Night, 1800-0600 PST)

Date		Total Volume m^3	μg^a
3/29-30/87	Night	0.78	0.22 0.18
3/30/87	Day	0.96	0.13 0.10
3/31/87	Day (0800-1800) ^b	0.52	0.18 0.16
3/31-4/1/87	Night	0.48	0.19 0.16
4/1/87	Day	0.61	0.14 0.13
4/1-2/87	Night	0.59	0.20 0.19
4/2/87	Day	0.51	0.14 0.11
4/7/87	Day	0.78	0.18 0.15
4/7-8/87	Night	0.72	0.31 0.32
4/8/87	Day	0.52	0.15 0.12
4/8-9/87	Night	0.48	0.24 0.24
4/9/87	Day	0.60	0.17 0.14
4/9-10/87	Night	0.63	0.26 0.26
4/10/87	Day	0.45	0.13 0.10
4/10-11/87	Night	0.48	0.15 0.12

^aValues given are for replicate injections on GC/MS.

^bSampling interval less than 12-hr as indicated.

Table C-6. Naphthalene (μg) Measured and Total Volumes Sampled on Low-flow Tenax at Reseda, CA, May and June 1987 (Day, 0700-1900 PDT; Night, 1900-0700 PDT)

Date		Total Volume m^3	μg^a
5/27-28/87	Night (2000-0700) ^b	1.01	1.00
			1.01
5/28/87	Day	0.64	0.33
			0.33
5/28-29/87	Night	0.61	0.81
			0.80
5/29/87	Day	0.58	0.44
			0.43
5/29-30/87	Night	0.91	1.28
			1.27
5/30/87 ^c	Day	0.96	0.35
			0.36
5/31/87	Day	0.55	0.23
			0.22
5/31-6/1/87	Night	0.83	1.36
			1.34
6/1/87	Day	0.87	0.30
			0.30
6/1-2/87	Night	0.56	0.89
			0.88
6/2/87	Day	0.51	0.33
			0.33
6/2-3/87	Night	0.81	0.79
			0.80
6/13-14/87	Night	0.58	0.41
			0.41
6/14/87	Day	0.54	0.19
			0.19

(continued)

Table C-6 (continued) - 2

Date	Total Volume m ³	μg ^a
6/14-15/87 Night	0.86	0.30 0.30
6/15/87 Day	0.81	0.37 0.36

^aValues given are for replicate injections on GC/MS.

^bSampling interval less than 12-hr as indicated.

^cSample from 5/30-31/87 could not be quantified; no internal standard added prior to elution.

Table C-7. Naphthalene (μg) Measured and Total Volumes Sampled on Low-Flow Tenax at Pt. Arguello, CA, July 1987 (Day, 0700-1900 PDT; Night, 1900-0700 PDT)

Date		Total Volume m^3	μg
7/4/87	Day	0.58	0.03
7/4-5/87	Night	0.55	0.06
7/5/87	Day	0.81	0.04
7/5-6/87	Night	0.67	0.04
7/6/87	Day	0.53	0.03
7/6-7/87	Night	0.53	0.08
7/7/87	Day	0.53	0.04
7/7-8/87	Night	a	
7/8/87	Day	0.65	0.04
7/8-9/87	Night	0.62	0.06
7/9/87	Day	0.81	0.07
7/9-10/87	Night	0.72	0.06
7/10/87	Day	0.52	0.08
7/10-11/87	Night	0.46	0.09
7/11/87	Day	0.68	0.04
7/11-12/87	Night	b	
7/12/87	Day	0.56	0.05
7/12-13/87	Night	0.66	0.08
7/13/87	Day	0.81	0.07
7/13-14/87	Night	0.73	0.03

^aFlow valve plugged.

^bCondensation on flow valve.

Table C-8. A Comparison of PAH Concentrations (ng m^{-3}) Measured on Low Flow and High Flow Tenax-GC Solid Adsorbent at Citrus College, Glendora, CA (Day, 0800-2000 PDT; Night, 2000-0800 PDT)

		ng m^{-3} ^a					
		Naphthalene		1-Methyl-naphthalene		2-Methyl-naphthalene	
Date		Low Flow ^b	High Flow ^c	Low Flow ^d	High Flow	Low Flow	High Flow
8/12/86	Day	2,200	e	150	e	250	e
8/12-13/86	Night	5,000	2,200	460	500	860	900
8/13/86	Day	2,400	1,100	140	160	100	320
8/13-14/86	Night	4,800	1,900	430	390	720	730
8/14/86	Day	2,500	820	100	130	150	260
8/14-15/86	Night	3,000	1,600	340	330	680	640
8/15/86	Day	2,800	e	180	e	190	e
8/15-16/86	Night	4,100	2,000	380	380	720	730
8/16/86	Day	3,200	690	130	98	60	200
8/16-17/86	Night	3,400	1,800	350	350	660	700
8/17/86	Day	2,000	470	60	76	50	170
8/17-18/86	Night	4,300	1,800	310	330	650	680
8/18/86	Day	4,100	670	110	120	120	260
8/18-19/86	Night	4,200	1,600	270	280	540	570
8/19/86	Day	4,300	500	100	90	110	200
8/19-20/86	Night	3,800	1,600	350	290	620	600
8/20/86	Day	4,100	810	180	150	180	320
8/20-21/86	Night	6,100	e	490	e	860	e

^aAverage of replicate injections.

^bSampled at $\sim 1 \text{ L min}^{-1}$.

^cSampled at $\sim 10 \text{ L min}^{-1}$.

^dCorrected by subtraction of average interference value as observed on back-up Tenax.

^eHigh flow Tenax sample lost.

Table C-9. Volatile PAH (μg) Measured and Total Volumes Sampled for Selected Day/Night Intervals^a at the Seven Sampling Sites in California. Samples were collected onto High-Flow Tenax-GC Solid Adsorbent Cartridges

Location and Date		Total Volume m ³	μg ^b							
			Naphtha- lene	1-Methyl- naphtha- lene	2-Methyl naphtha- lene	Biphenyl	Acenaph- thylene	Acenaph- thene	Fluorene	Phenan- threne
Glendora ^c 8/12/86	Day	0.66	1.51 1.41	0.11 0.11	0.18 0.15					
Glendora 8/12-13/86	Night	6.76	14.99 14.57	3.24 3.46	5.83 6.35	1.51 1.51	0.26 0.27	0.22 0.21	0.33 0.33	0.43 0.43
Glendora 8/13/86	Day	6.76	7.97 7.56	1.07 1.11	2.09 2.18	0.64 0.64	d 0.02	0.02 0.04	0.20 0.21	0.17 0.18
Glendora 8/13-14/86	Night	6.83	12.83 12.66	2.53 2.74	4.75 5.24	1.16 1.19	0.08 0.09	0.15 0.15	0.25 0.26	0.34 0.35
Glendora 8/14/86	Day	6.83	5.70 5.45	0.90 0.92	1.73 1.79	0.48 0.48	d 0.02	0.02 0.04	0.20 0.21	0.14 0.14
Glendora 8/14-15/86	Night	6.83	11.22 10.79	2.19 2.32	4.23 4.56	0.71 0.72	0.15 0.16	0.11 0.12	0.23 0.24	0.27 0.28
Glendora ^c 8/15/86	Day	0.61	1.71 1.69	0.10 0.11	0.12 0.11					
Glendora 8/15-16/86	Night	6.83	13.76 13.40	2.50 2.66	4.75 5.20	0.45 0.45	0.06 0.07	0.14 0.15	0.23 0.25	0.28 0.30
Glendora 8/16/86	Day	6.69	4.66 4.63	0.64 0.67	1.32 1.40	0.34 0.35	d 0.02	d 0.03	0.15 0.16	0.10 0.11
Glendora 8/16-17/86	Night	6.83	12.60 12.39	2.29 2.51	4.57 5.01	0.66 0.68	d 0.02	0.16 0.17	0.27 0.28	0.25 0.26
Glendora 8/17/86	Day	6.34	2.99 2.96	0.47 0.49	1.02 1.08	0.23 0.23	d 0.02	d 0.03	0.17 0.17	0.12 0.13

(continued)

Table C-9 (continued) - 2

Location and Date		Total Volume m ³	μg ^b							
			Naphtha- lene	1-Methyl- naphtha- lene	2-Methyl naphtha- lene	Biphenyl	Acenaph- thylene	Acenaph- thene	Fluorene	Phenan- threne
Glendora 8/17-18/86	Night	6.76	12.16 12.28	2.17 2.36	4.40 4.83	0.36 0.37	0.02 0.04	0.20 0.20	0.30 0.33	0.34 0.35
Glendora 8/18/86	Day	6.42	4.30 4.31	0.78 0.81	1.61 1.74	0.27 0.28	d 0.02	0.02 0.04	0.19 0.21	0.16 0.17
Glendora 8/18-19/86	Night	6.76	10.71 10.34	1.83 2.02	3.67 4.08	0.44 0.46	d 0.02	0.18 0.20	0.28 0.30	0.30 0.32
Glendora 8/19/86	Day	6.76	3.43 3.38	0.60 0.62	1.27 1.37	0.24 0.25	d 0.02	0.02 0.04	0.15 0.16	0.14 0.15
Glendora 8/19-20/86	Night	6.76	10.84 10.36	1.89 1.98	3.89 4.19	0.40 0.41	d 0.02	0.18 0.20	0.28 0.31	0.33 0.34
Glendora 8/20/86	Day	6.76	5.52 5.41	1.00 1.06	2.11 2.27	0.36 0.36	d 0.02	0.03 0.05	0.22 0.23	0.19 0.20
Glendora ^c 8/20-21/86	Night	0.45	2.75 2.78	0.23 0.23	0.39 0.39					
Yuba City 10/21/86	Day	7.31	10.5 10.8	2.19 2.26	4.89 5.11	0.20 0.19	0.04 0.04	0.03 0.02	0.13 0.16	0.15 0.16
Yuba City 10/21-22/86	Night	8.24	16.3 16.6	4.14 4.27	8.58 8.96	0.25 0.22	0.25 0.24	0.19 0.17	0.25 0.26	0.29 0.29
Concord 12/6-7/86	Night	5.41	11.0 10.7	2.02 2.00	4.24 4.30	0.47 0.44	0.64 0.62	0.16 0.15	0.27 0.29	0.42 0.43
Concord 12/7/86	Day	7.52	4.4 4.2	0.65 0.62	1.46 1.41	0.03 0.01	0.01 d	0.03 0.01	0.09 0.11	0.10 0.10

(continued)

Table C-9 (continued) - 3

Location and Date	Total Volume m ³	μg ^b							
		Naphtha- lene	1-Methyl- naphtha- lene	2-Methyl naphtha- lene	Biphenyl	Acenaph- thylene	Acenaph- thene	Fluorene	Phenan- threne
Mammoth 2/20-21/87 Night	6.05	11.1 10.9	1.31 1.28	2.13 2.08	0.59 0.56	0.04 0.04	0.12 0.11	0.46 0.45	1.47 1.37
Mammoth 2/21/87 Day	6.48	6.1 6.1	0.84 0.80	1.63 1.56	0.09 0.07	0.01 0.01	0.02 d	0.15 0.17	0.43 0.42
Oildale 4/7/87 Day	6.26	1.8 1.8	0.24 0.22	0.47 0.44	0.06 0.06	d d	e e	0.04 0.06	0.01 0.02
Oildale 4/7-8/87 Night	4.82	3.4 3.3	0.79 0.78	1.53 1.51	0.10 0.10	0.03 0.02	0.05 0.04	0.10 0.12	0.07 0.07
Reseda 5/28-29/87 Night	5.80	10.0 9.9	2.04 2.09	4.30 4.40	0.11 0.09	0.11 0.10	0.06 0.04	0.12 0.13	0.13 0.13
Reseda 5/29/87 Day	5.58	5.6 5.4	0.90 0.87	1.85 1.83	0.15 0.13	d d	e e	0.07 0.09	0.07 0.07
Pt. Arguello 7/6-7/87 Night	5.69	0.22 0.22	e e	e e	e e	e e	e e	0.02 0.04	e e
Pt. Arguello 7/7/87 Day	5.69	0.25 0.24	e e	e e	e e	e e	e e	0.02 0.04	e e

^aSee Tables B-1 through B-7 for the 12-hr day and 12-hr night sampling intervals at each site.

^bValues given are for replicate injections on GC/MS.

^cNo high-flow Tenax sample; values given are from low-flow Tenax sample. The 2-methylnaphthalene value has been corrected by subtraction of an interference as observed on the back-up Tenax.

^dPeak area too small for quantification.

^eNone detected.

Table C-10. PAH Concentrations (ng m⁻³) Measured on PUF Plugs at Citrus College, Glendora, CA

	Total Volume m ³	Fluorene ^a	Dibenzo- thiophene	Phen- anthrene	Anthra- cene	Fluor- anthene ^b	Pyrene ^b
Citrus College PUF Sample #1 8/13/86 0800-2000 PDT	469 ^c	7.7	2.6	16.1	0.5	4.0	2.5
Citrus College PUF Sample #2 8/13-14/86 2000-0800 PDT	938	17.5	3.3	23.2	1.9	6.2	5.5
Citrus College PUF Sample #3 Day Composite 0800-2000 PDT 8/15, 16, 17, 18/86	3,751	5.4	2.3	14.4	0.3	4.2	2.4
4th PUF Day Composite	3,751	4.4	0.3 ^d	1.5	0.04	0.03	0.02
Citrus College PUF Sample #4 Night Composite 2000-0800 PDT 8/15-16, 16-17, 17-18, 18-19/86	3,751	14.1	3.0	22.2	1.2	5.2	4.0
4th PUF Night Composite	3,751	11.6	0.05 ^d	0.2	e	0.02	0.03
Citrus College PUF Sample #5 8/20/86 0800-2000 PDT	938	6.2	2.7	19.0	0.5	5.9	3.6
Citrus College PUF Sample #6 8/20-21/86 2000-0800 PDT	938	20.8	4.5	31.8	1.8	6.8	4.9

^aNot quantitative, a lower limit due to breakthrough.

^bSome present on the particles as well.

^cOnly a single Hi-vol sample utilized; second Hi-vol not operating correctly.

^dBased on a single injection.

^eNone detected.

Table C-11. PAH (μg) Measured and the Total Volumes Sampled for Single or Composited Day/Night Sampling Intervals on PUF Plugs at the Seven Sampling Sites in California

Location and Dates ^a			Total Volume m^3	μg ^{b,c}					
				Fluorene ^d	Dibenzo- thiophene	Phenan- threne	Anthra- cene	Fluor- anthene	Pyrene
C-18	Glendora 8/13/86	Sample #1 Day	469 ^e	3.61 3.65	1.21 1.23	7.28 7.85	0.20 0.25	1.94 1.82	1.14 1.18
	Glendora 8/13-14/86	Sample #2 Night	938	17.18 15.70	3.09 3.13	21.86 21.66	1.46 2.06	5.76 5.94	5.11 5.28
	Glendora 8/15,16,17,18/86	Sample #3 Day	3,751	35.62 38.11	9.27 10.30	56.04 63.62	1.16 1.14	15.19 16.12	9.06 9.37
	Glendora 8/15-16,16-17,17-18,18-19/86	Sample #4 Night	3,751	93.18 99.14	10.63 11.85	78.53 89.48	4.53 4.60	19.06 20.24	15.14 15.44
	Glendora 8/20/86	Sample #5 Day	938	5.59 6.03	2.44 2.71	16.89 18.84	0.53 0.48	5.43 5.65	3.32 3.38
	Glendora 8/20-21/86	Sample #6 Night	938	18.93 20.08	3.97 4.49	28.23 31.48	1.72 1.75	6.29 6.54	4.60 4.65
	Yuba City 10/16,18,20/86	Sample #1 Day	3,415	18.31 19.06	8.32 8.19	35.60 36.79	2.14 2.76	11.20 10.71	7.15 6.84
	Yuba City 10/17,23/86	Sample #2 Day	1,475	5.48 5.51	1.62 1.52	8.81 10.53	0.48 0.43	2.87 2.98	1.57 1.69
	Yuba City 10/16-17,18-19,20-21,23-24/86	Sample #3 Night	3,700	15.51 15.29	4.05 4.00	18.85 20.18	1.52 2.43	6.26 6.52	4.71 5.04
	Concord 12/8,9/86; 1/19/87	Sample #1 Day	2,874	25.36 27.42	6.27 6.22	49.84 53.73	9.16 9.84	21.02 22.75	20.94 22.65

(continued)

Table C-11 (continued) - 2

Location and Dates ^a			Total Volume m ³	μg ^{b,c}					
				Fluorene ^d	Dibenzo- thiophene	Phenan- threne	Anthra- cene	Fluor- anthene	Pyrene
Concord 1/18,21,22/87	Sample #2	Day	2,956	30.43	4.81	50.06	5.20	18.06	14.72
				32.73	4.60	52.55	5.31	18.91	15.65
Concord 12/6-7,7-8,8-9/86	Sample #3	Night	2,717	55.67	7.32	105.66	33.22	46.23	40.68
				60.70	7.43	118.43	37.78	50.45	45.23
Concord 1/17-18,18-19,21-22/87	Sample #4	Night	3,040	99.45	12.11	193.84	49.54	74.03	59.61
				108.92	12.60	209.82	54.00	78.92	63.93
Concord 12/10-11/86; 1/14-15/87	Sample #5	Night	1,951	22.03	5.00	38.15	7.41	12.47	11.98
				22.64	5.20	41.92	8.03	13.60	13.12
Mammoth Lakes 2/14,16,17,21,22,26,28/87	Sample #1	Day	6,234	66.74	6.91	147.80	40.24	61.64	55.25
				56.89	5.70	119.17	33.07	53.97	46.71
				60.47	6.67	138.95	38.12	58.36	52.72
Mammoth Lakes 2/16-17,17-18,20-21,27-28; 2/28-3/1/87	Sample #2	Night	4,506	126.99	2.88	292.56	102.54	73.61	57.77
				114.61	3.03	252.49	87.20	68.03	51.77
				116.24	2.92	272.11	96.55	72.24	55.59
Mammoth Lakes 2/14-15,15-16,21-22,22-23, 25-26/87	Sample #3	Night	4,480	41.59	1.92	92.80	25.69	19.36	15.97
				36.19	1.80	82.55	22.78	17.51	14.60
				36.06	1.73	87.38	23.33	18.47	15.62
Oildale 3/30,31/87; 4/1,2,7,8,9,10/87	Sample #1	Day	8,070	10.27	6.53	49.11	4.34	10.76	11.11
				9.05	6.58	48.26	3.82	10.31	10.05
Oildale 3/29-30/87; 4/9-10,10-11/87	Sample #2	Night	3,113	16.72	3.54	26.83	2.21	3.75	3.68
				15.81	3.39	25.90	1.93	3.60	3.53

(continued)

Table C-11. (continued) - 3

Location and Dates ^a			Total Volume m ³	µg ^{b,c}					
				Fluorene ^d	Dibenzo- thiophene	Phenan- threne	Anthra- cene	Fluor- anthene	Pyrene
Oildale	Sample #3	Night	4,151	28.67	6.62	50.20	4.37	6.79	6.60
				26.06	6.93	47.49	3.78	6.65	6.27
Reseda	Sample #1	Day	8,188	21.64	13.53	118.21	9.32	34.45	25.47
				22.18	13.27	121.79	10.11	35.38	26.49
Reseda	Sample #2	Night	9,326	86.73	17.68	162.34	17.80	37.05	31.39
				89.78	13.54	170.63	19.69	39.39	33.97
Pt. Arguello	Sample #1	Day	9,138	5.15	1.85	16.45	1.13	0.99	0.82
				5.17	1.88	16.49	1.18	0.99	0.83
Pt. Arguello	Sample #2	Night	8,150	13.62	3.47	33.49	1.87	1.64	1.10
				13.65	3.56	33.49	1.87	1.62	1.11

^aSee Section V for full details of compositing.

^bValues given are for replicate or triplicate injections on GC/MS.

^cFour PUF plugs in series were used at Glendora, three PUF plugs were used at all other sites.

^dNot quantitative, a lower limit due to breakthrough.

^eSingle Hi-vol with PUF plugs, second Hi-vol malfunctioned.

Table C-12. Nitroarenes (μg) Measured and Total Volumes Sampled for Single or Composited Day/Night Sampling Intervals on PUF Plugs at the Seven Sampling Sites in California

Location and Dates ^a			Total Volume m^3	μg ^{b,c}		
				1-Nitro- naphthalene	2-Nitro- naphthalene	3-Nitro- biphenyl
Glendora	Sample #1	Day	469 ^d	1.06	0.85	0.56
8/13/86				1.12	0.83	0.60
Glendora	Sample #2	Night	938	2.30	1.49	0.39
8/13-14/86				2.59	1.57	0.45
Glendora	Sample #3	Day	3,751	8.95	8.82	3.00
8/15,16,17,18/86				9.31	9.47	3.35
Glendora	Sample #4	Night	3,751	12.17	7.60	1.20
8/15-16,16-17,17-18,18-19/86				12.43	7.53	1.28
Glendora	Sample #5	Day	938	2.44	2.41	0.79
8/20/86				2.59	2.45	0.87
Glendora	Sample #6	Night	938	5.16	2.64	0.41
8/20-21/86				5.56	3.26	0.45
Yuba City	Sample #1	Day	3,415	1.74	2.14	0.59
10/16,18,20/86				1.56	2.05	0.69
Yuba City	Sample #2	Day	1,475	0.68	0.85	0.16
10/17,23/86				0.70	0.92	0.21
Yuba City	Sample #3	Night	3,700	1.64	1.32	0.22
10/16-17,18-19,20-21,23-24/86				1.74	1.40	0.29
Concord	Sample #1	Day	2,874	0.30	0.52	0.17
12/8,9/86; 1/19/87				0.30	0.43	0.13

(continued)

Table C-12 (continued) - 2

Location and Dates ^a			Total Volume m ³	μg b,c		
				1-Nitro- naphthalene	2-Nitro- naphthalene	3-Nitro- biphenyl
Concord	Sample #2	Day	2,956	0.50	$\leq 1.02^e$	0.15
1/18,21,22/87				0.48	$\leq 1.05^e$	0.24
Concord	Sample #3	Night	2,717	1.50	0.77	0.23
12/6-7,7-8,8-9/86				1.41	0.67	0.18
Concord	Sample #4	Night	3,040	2.34	1.48	0.41
1/17-18,18-19,21-22/87				2.11	1.24	0.32
Concord	Sample #5	Night	1,951	0.37	0.28	0.05
12/10-11/86; 1/14-15/87				0.37	0.33	0.06
Mammoth Lakes	Sample #1	Day	6,234	$\leq 0.28^e$	$< 0.5^e$	≤ 0.16
2/14,16,17,21,22,26,28/87				$\leq 0.20^e$	$\leq 0.2^e$	≤ 0.11
Mammoth Lakes	Sample #2	Night	4,506	0.84	0.52	≤ 0.23
2/16-17,17-18,20-21,27-28;2/28-3/1/87				0.81	0.72	≤ 0.30
Mammoth Lakes	Sample #3	Night	4,480	0.32	0.23	≤ 0.02
2/14-15,15-16,21-22,22-23,25-26/87				0.34	0.34	≤ 0.08
Oildale	Sample #1	Day	8,070	0.58	1.04	0.20
3/30,31/87; 4/1,2,7,8,9,10/87				0.58	0.91	0.14
Oildale	Sample #2	Night	3,113	0.28	$\leq 0.48^e$	0.04
3/29-30/87;4/9-10,10-11/87				0.29	$\leq 0.38^e$	0.04
Oildale	Sample #3	Night	4,151	0.47	$< 0.76^f$	0.09
3/31-4/1/87; 4/1-2,7-8,8-9/87				0.49	$< 0.71^f$	0.07

(continued)

Table C-12 (continued) - 3

Location and Dates ^a	Total Volume m ³	µg ^{b,c}		
		1-Nitro- naphthalene	2-Nitro- naphthalene	3-Nitro- biphenyl
Reseda Sample #1 Day 5/28,29,30,31/87; 6/1,2,14,15/87	8,188	2.67 2.89	3.13 3.58	1.04 1.63
Reseda Sample #2 Night 5/27-28,28-29,29-30,30-31,5/31-6/1; 6/1-2,2-3,13-14,14-15/87	9,326	7.42 7.68	4.94 5.26	0.37 0.55
Pt. Arguello Sample #1 Day 7/4,5,6,7,8,9,10,11,12/87	9,138	0.13 0.14	<0.2 ^f <0.2 ^f	0.02 g
Pt. Arguello Sample #2 Night 7/4-5,5-6,6-7,7-8,8-9,9-10,10-11,11-12/87	8,150	0.19 0.17	<0.5 ^f <0.5 ^f	g 0.014

^aSee Section V for full details of compositing.

^bValues given are for replicate injections on GC/MS.

^cFour PUF plugs in series were used at Glendora, three PUF plugs were used at all other sites.

^dSingle Hi-vol with PUF plugs, second Hi-vol malfunctioned.

^ePossible interfering compounds.

^fUpper limit given; interfering compound present.

^gNone detected.

Table C-13. Nitroarenes Measured on PUF Plugs at Citrus College, Glendora, CA

	Total Volume ^a m ³	Replicate GC/MS-MID Quantifications (µg)		
		1-Nitronaph- thalene	2-Nitronaph- thalene	3-Nitro- biphenyl
Citrus College PUF Sample #1 8/13/86 0800-2000 PDT	469 ^b	1.06 1.12	0.85 0.83	0.56 0.60
Citrus College PUF Sample #2 8/13-14/86 2000-0800 PDT	938	2.30 2.59	1.49 1.57	0.39 0.45
Citrus College PUF Sample #3 Day Composite 0800-2000 PDT 8/15,16,17,18/86	3,751	7.48 8.04	8.09 8.43	2.92 3.35
Sample #3 4th PUF Day Composite		1.47 1.27	0.73 1.04	0.08 c
Citrus College PUF Sample #4 Night Composite 2000-0800 PDT 8/15-16,16-17,17-18,18-19/86	3,751	11.65 11.86	7.51 7.31	1.19 1.28
Sample # 4 4th PUF Night Composite		0.52 0.57	0.09 0.22	0.01 c
Citrus College PUF Sample #5 8/20/86 0800-2000 PDT	938	2.44 2.59	2.41 2.45	0.79 0.87
Citrus College PUF Sample #6 8/20-21/86 2000-0800 PDT	938	5.16 5.56	2.64 3.26	0.41 0.45

^aRun at 23 SCFM.^bOnly a single Hi-vol sample utilized.^cNone detected.

Table C-14. PAH (ug) Measured of Targeted Species M.W. 202-234 for Single or Composited Day/Night Sampling Intervals on TIGF Filters at the Seven Sampling Sites in California and San Nicolas Island

Location Site and Dates ^a			Total Volume m ³	µg ^b								
				Fluor- anthene ^c	Pyrene ^c	Acephenan- thrylene ^c	Benzo[ghi]- fluoranthene	Cyclopenta- [cd]pyrene	Benzo[c]- phenanthrene	Benz[a]- anthracene	Chrysene/ triphenylene	Retene
Glendora 8/13/86	Sample #1	Day	4,078	1.532 0.897	2.466 1.965	1.247 0.489	0.986 1.003	0.286 0.286	0.167 0.177	1.029 0.834	2.616 3.691	1.474 0.745
Glendora 8/13-14/86	Sample #2	Night	4,078	1.170 1.125	1.445 1.243	0.141 d	1.441 1.699	0.692 0.738	0.138 0.110	1.174 1.133	5.405 6.617	0.588 d
Glendora 8/15,16,17,18/86	Sample #3	Day	13,048	3.096 3.037	3.098 2.920	0.768 0.807	0.837 0.727	0.324 0.352	0.228 0.220	1.954 1.890	7.024 6.900	1.612 1.589
Glendora 8/15,16,17,18/86	Sample #3A	Day	5,158	1.518 1.613	1.820 1.925	0.084 0.069	1.133 1.210	0.160 d	0.203 0.183	0.852 0.818	4.900 5.440	0.303 0.206
Glendora 8/15-16,16-17,17-18,18-19/86	Sample #4	Night	13,048	d d	d d	e e	0.155 0.217	0.208 0.269	d d	0.960 0.933	5.833 7.224	d d
Glendora 8/15-16,16-17,17-18,18-19/86	Sample #4A	Night	5,627	1.439 1.318	1.560 1.553	0.158 d	2.401 2.142	0.727 0.726	0.268 0.228	1.208 1.277	7.106 6.638	0.337 d
Glendora 8/20/86	Sample #5	Day	4,078	1.050 d	1.221 d	d e	0.603 0.727	0.309 d	0.106 d	0.594 d	3.306 3.491	0.086 d
Glendora 8/20-21/86	Sample #6	Night	4,078	0.745 0.866	0.996 1.103	0.135 0.101	0.663 0.825	0.305 0.278	0.099 0.124	0.697 0.849	3.250 3.963	0.790 d
Yuba City 10/16,18,20/86	Sample #1	Day	14,461	2.508 2.449	2.461 2.425	0.199 0.139	1.803 1.674	0.148 0.127	0.502 0.478	1.889 1.834	6.530 6.203	1.938 2.062
Yuba City 10/17,23/86	Sample #2	Day	6,290	1.777 1.748	1.805 1.751	0.136 0.150	1.809 1.624	0.294 0.280	0.615 0.590	1.773 1.691	7.321 6.940	0.476 0.526

(continued)

Table C-14 (continued) - 2

Location Site and Dates ^a			Total Volume m ³	µg ^b								
				Fluor- anthene ^c	Pyrene ^c	Acephenan- thrylene ^c	Benzo[ghi]- fluoranthene	Cyclopenta- [od]pyrene	Benzo[c]- phenanthrene	Benz[a]- anthracene	Chrysene/ triphenylene	Retene
Yuba City	Sample #3	Night	15,501	2.556	2.979	0.417	2.364	1.628	0.530	2.900	7.651	1.757
10/16-17,18-19,20-21,23-24/86				2.583	2.935	0.416	2.321	1.635	0.525	2.811	7.504	1.843
Concord	Sample #1	Day	12,143	2.290	2.827	0.402	9.227	10.08	2.303	19.343	29.990	1.724
12/8,9/86; 1/19/87				2.286	2.845	0.407	8.510	10.315	2.352	19.259	30.372	1.842
Concord	Sample #2	Day	12,737	2.689	2.932	0.427	11.037	5.860	4.288	31.502	58.172	2.920
1/18,21,22/87				2.581	2.929	0.390	10.690	6.100	4.196	31.825	58.855	3.026
Concord	Sample #3	Night	11,827	6.254	7.477	2.390	26.518	70.528	15.099	74.133	103.492	16.100
12/6-7,7-8,8-9/86				6.264	7.554	2.331	25.951	71.372	14.853	76.011	107.708	17.047
Concord	Sample #4	Night	13,101	15.911	18.303	5.768	47.483	120.700	27.248	127.422	177.550	27.267
1/17-18,18-19,21-22/87				16.134	18.636	5.745	46.686	122.160	24.931	127.789	175.706	29.124
Concord	Sample #5	Night	8,734	1.449	1.756	0.302	7.265	13.921	2.920	18.774	26.721	1.794
12/10-11/86; 1/14-15/87				1.436	1.752	0.310	6.936	13.839	2.796	18.693	26.533	1.885
Mammoth Lakes	Sample #1	Day	22,320	106.701	123.556	30.430	58.678	73.837	34.890	115.192	144.963	160.851
2/14,16,17,21,22,26,28/87				105.697	123.678	30.246	59.245	74.179	35.173	116.816	144.385	157.863
Mammoth Lakes	Sample #2	Night	15,943	467.358	474.804	141.371	410.587	184.738	112.794	290.789	376.016	1,356.883
2/16-17,17-18,20-21,27-28; 2/28-3/1/87				475.817	476.389	140.979	410.137	190.956	111.842	291.511	375.764	1,374.774
Mammoth Lakes	Sample #3	Night	13,475	98.699	100.532	31.976	28.913	44.278	21.953	66.691	83.197	382.118
2/14-15,15-16,21-22,22-23,25-26/87				99.091	101.652	32.314	28.916	44.383	21.826	67.706	83.293	388.981
Oildale	Sample #1	Day	31,641	8.645	9.532	0.618	3.192	1.726	1.792	10.154	16.993	1.059
3/30,31/87; 4/1,2,7,8,9,10/87				8.663	9.512	0.628	3.211	1.748	1.795	10.148	17.082	0.995

(continued)

Table C-14 (continued) - 3

Location Site and Dates ^a	Total Volume m ³	µg ^b								
		Fluor- anthene ^c	Pyrene ^c	Acephenan- thrylene ^c	Benzo[ghi]- fluoranthene	Cyclopenta- [cd]pyrene	Benzo[a]- phenanthrene	Benzo[a]- anthracene	Chrysene/ triphenylene	Retene
Oildale Sample #2 Night 3/29-30/87; 4/9-10,10-11/87	12,086	2.102 2.108	2.197 2.214	0.209 0.216	1.048 1.054	0.366 0.374	0.376 0.373	1.576 1.564	3.595 3.639	1.722 1.692
Oildale Sample #3 Night 3/31-4/1/87; 4/1-2,7-8,8-9/87	16,114	8.309 8.320	9.972 9.911	0.485 0.489	3.016 3.087	1.301 1.241	1.562 1.547	10.948 10.992	16.704 17.004	1.514 1.698
Reseda Sample #1 Day 5/28,29,30,31/87; 6/1,2,14,15/87	30,728	8.621 8.422	10.284 9.935	2.396 2.378	9.855 9.463	9.241 8.701	2.061 2.057	9.993 9.366	21.162 19.905	1.293 1.613
Reseda Sample #2 Night 5/27-28,28-29,29-30,30-31,5/31-6/1; 6/1-2,2-3,13-14,14-15/87	34,436	5.450 5.180	5.523 5.283	0.653 0.694	4.072 3.847	1.640 1.578	0.802 0.835	4.582 4.282	11.499 10.594	0.883 1.290
Pt. Arguello Sample #1 Day 7/4,5,6,7,8,9,10,11,12/87	29,211	3.206 3.249	1.717 1.735	e e	0.252 0.261	e e	0.131 0.132	0.128 0.124	1.329 1.341	0.940 0.956
Pt. Arguello Sample #2 Night 7/4-5,5-6,6-7,7-8,8-9,9-10,10-11, 11-12/87	25,492	3.967 4.055	2.423 2.454	e e	0.225 0.229	e e	0.118 0.118	0.182 0.180	1.219 1.237	0.991 0.806
San Nicolas Island Composite 6/19-20,24-26; 7/13-16; 8/27-30; 9/2-4/87	17,641	0.659 0.706	1.266 1.352	e e	0.130 0.130	e e	0.080 0.070	0.095 0.085	0.969 0.969	1.169 1.090

^aSee Section V for full details of compositing.^bReplicate GC/MS injections.^cMainly present on PUF plugs, see text for discussion.^dAmount present too low to quantify.^eNone detected.

Table C-15. The M.W. 252 Species: Benzo[fluoranthenes, Benzo[e]pyrene, Benzo[a]pyrene and Perylene Measured for Single or Composited Day/Night Sampling Intervals on TIGF Filters at the Seven Sampling Sites in California and San Nicolas Island

Location Site and Dates ^a			Total Volume m ³	μg ^b			
				Benzo- fluoranthenes ^c	Benzo[e]- pyrene	Benzo[a]- pyrene	Perylene ^d
Glendora 8/13/86	Sample #1	Day	4,078	4.969	2.583	1.111	0.254
				4.592	2.481	1.007	0.223
Glendora 8/13-14/86	Sample #2	Night	4,078	9.742	6.047	2.484	0.760
				10.097	6.473	2.568	0.775
Glendora 8/15, 16, 17, 18/86	Sample #3	Day	13,048	10.791	5.386	2.426	0.537
				10.186	5.196	2.296	0.504
Glendora 8/15, 16, 17, 18/86	Sample #3A	Day	5,158	5.197	2.867	1.105	e
				4.843	2.878	1.060	e
Glendora 8/15-16, 16-17, 17-18, 18-19/86	Sample #4	Night	13,048	17.648	8.654	2.636	0.989
				16.674	8.202	1.995	0.713
Glendora 8/15-16, 16-17, 17-18, 18-19/86	Sample #4A	Night	5,627	8.777	6.364	2.22	0.505
				8.557	6.299	1.873	0.315
Glendora 8/20/86	Sample #5	Day	4,078	7.325	3.374	1.030	0.320
				7.069	3.365	0.854	0.222
Glendora 8/20-21/86	Sample #6	Night	4,078	8.033	4.031	1.361	0.450
				7.304	3.739	1.225	0.389
Yuba City 10/16, 18, 20/86	Sample #1	Day	14,461	9.227	4.896	1.869	0.327
				9.472	5.199	1.961	0.310
Yuba City 10/17, 23/86	Sample #2	Day	6,290	9.103	4.003	1.988	0.307
				9.692	4.241	2.077	0.318

(continued)

Table C-15 (continued) - 2

Location Site and Dates ^a	Total Volume m ³	µg ^b			
		Benzo- fluoranthenes ^c	Benzo[e]- pyrene	Benzo[a]- pyrene	Perylene ^d
Yuba City Sample #3 Night 10/16-17, 18-19, 20-21, 23-24/86	15,501	10.161 10.078	5.402 5.246	3.413 3.354	0.779 0.771
Concord Sample #1 Day 12/8, 9/86; 1/19/87	12,143	53.797 53.610	23.324 23.048	21.532 21.434	4.615 4.612
Concord Sample #2 Day 1/18, 21, 22/87	12,737	73.274 72.593	35.517 35.067	41.315 40.984	4.580 4.538
Concord Sample #3 Night 12/6-7, 7-8, 8-9/86	11,827	132.612 128.968	50.314 49.390	73.839 71.559	16.454 16.362
Concord Sample #4 Night 1/17-18, 18-19, 21-22/87	13,101	200.641 206.215	73.990 76.911	104.895 108.608	21.305 22.440
Concord Sample #5 Night 12/10-11/86; 1/14-15/87	8,734	34.839 34.645	13.214 13.338	16.770 16.963	3.259 3.349
Mammoth Lakes Sample #1 Day 2/14, 16, 17, 21, 22, 26, 28/87	22,320	160.897 162.938	57.187 57.387	79.330 79.624	17.207 17.191
Mammoth Lakes Sample #2 Night 2/16-17, 17-18, 20-21, 27-28; 2/28-3/1/87	15,943	373.742 366.083	129.090 126.014	200.888 197.511	44.748 43.297
Mammoth Lakes Sample #3 Night 2/14-15, 15-16, 21-22, 22-23, 25-26/87	13,475	82.486 82.408	27.575 27.551	42.200 42.395	8.635 8.650
Oildale Sample #1 Day 3/30, 31/87; 4/1, 2, 7, 8, 9, 10/87	31,641	25.199 25.132	13.942 14.052	13.103 13.297	4.980 4.819
Oildale Sample #2 Night 3/29-30/87; 4/9-10, 10-11/87	12,086	5.241 5.230	2.974 2.951	2.017 2.002	0.511 0.505

(continued)

Table C-15 (continued) - 3

Location Site and Dates ^a	Total Volume m ³	μg ^b			
		Benzo- fluoranthenes ^c	Benzo[e]- pyrene	Benzo[a]- pyrene	Perylene ^d
Oildale Sample #3 Night 3/31-4/1/87; 4/1-2,7-8,8-9/87	16,114	35.227 35.272	15.716 15.712	14.237 14.278	5.475 5.626
Reseda Sample #1 Day 5/28,29,30,31/87; 6/1,2,14,15/87	30,728	29.672 28.019	22.102 21.424	14.630 14.205	3.551 3.277
Reseda Sample #2 Night 5/27-28,28-29,29-30,30-31,5/31-6/1; 6/1-2,2-3,13-14,14-15/87	34,436	15.349 15.050	9.886 9.678	4.454 4.750	0.307 0.784
Pt. Arguello Sample #1 Day 7/4,5,6,7,8,9,10,11,12/87	29,211	e e	0.153 0.148	e e	e e
Pt. Arguello Sample #2 Night 7/4-5,5-6,6-7,7-8,8-9,9-10,10-11,11-12/87	25,492	e e	0.197 0.197	e e	e e
San Nicolas Island Composite 6/19,24,25; 7/13,14,15; 8/27,28,29; 9/2,3/87; 6/19-20,24-25,25-26/87; 7/13-14,14-15,15-16/87; 8/27-28,28-29, 29-30/87; 9/3-4/87	17,641	0.186	0.084	e	e

^aSee Section V for full details of compositing.^bReplicate GC/MS injections.^c Benzo[b]fluoranthene, benzo[j]fluoranthene and benzo[k]fluoranthene.^dNot on targeted list of PAH.^eAmount present too low to quantify.

Table C-16. PAH (ug) Measured of Targeted Species M.W. 276-300 for Single or Composited Day/Night Sampling Intervals on TIGF Filters at the Seven Sampling Sites in California

Location Site and Dates	Total Volume m ³	Indeno-[1,2,3-cd]-fluoranthene		Indeno-[1,2,3-cd]-pyrene		Benzo[ghi]-perylene		Anth-anthrene		Benzo[c]-chrysene		Dibenz[a,j]-anthracene		Dibenz[a,c]-anthracene/ Dibenz[a,h]-anthracene ^b		Benzo[b]-chrysene		Picene		Coronene	
Glendora 8/13/86 Sample #1 Day	4,078	0.25; 0.16;	e e	3.09; 2.55;	0.02 0.02	6.07; 5.90;	0.04 0.03	0.26; e;	e e	0.06; e	e e	0.18; 0.08;	e e	0.39; 0.21;	0.02 0.02	0.12; e;	e e	0.44; 0.18;	0.04 e	2.69; 1.82;	0.93 0.20
Glendora 8/13-14/86 Sample #2 Night	4,078	0.61; 0.67;	e e	11.57; 11.06;	0.04 0.03	25.71; 23.88;	0.03 0.03	1.10; 1.13;	e e	e 0.13;	e e	0.25; 0.56;	0.01 0.01	0.62; 1.01;	0.08 0.06	e; 0.20;	0.02 e	e; 0.41;	0.07 0.02	8.67; 8.96;	1.35 0.69
Glendora 8/15,16,17,18/86 Sample #3A Day	5,158	e; 0.22;	e e	3.75; 4.01;	0.01 e	9.00; 9.36;	0.01 e	e; e;	e e	e; e;	e e	e; 0.20;	e e	e; 0.42;	0.02 0.01	e; e;	e e	e; 0.15;	0.03 0.01	9.71; 10.68;	0.02 e
Glendora 8/15-16,16-17, 17-18,18-19/86 Sample #4A Night	5,627	e; 0.36;	e e	7.29; 8.96;	0.02 0.03	30.59; 30.56;	0.02 0.02	e; e;	e e	e; e;	e e	e; e;	e e	0.51; 0.68;	0.02 0.02	e; e;	e e	e; e;	e 0.02	30.94; 33.14;	e 0.03
Glendora 8/20/86 Sample #5 Day	4,078	0.63; 0.47;	e e	8.04; 7.24;	0.01 e	13.64; 13.43;	0.02 e	0.45; e;	e e	0.08; e;	e e	0.70; 0.34;	e e	1.49; 1.27;	e e	0.23; e;	e e	1.38; 1.14;	e e	7.83; 5.89;	0.52 0.27
Glendora 8/20-21/86 Sample #6 Night	4,078	0.59; 0.74;	e e	8.95; 10.37;	e e	19.54; 20.69;	0.01 0.01	0.42; 0.64;	e e	e; 0.12;	e e	0.40; 0.67;	e e	1.48; 1.70;	e e	0.19; 0.30;	e e	0.85; 1.25;	e e	17.41; 19.58;	0.22 0.15
Yuba City 10/16,18,20/86 Sample #1 Day	14,461	e; e;	0.48 0.49	e; e;	3.68 3.72	6.80; 6.68;	1.61 1.55	e; e;	e e	e; e;	e 0.11	e; e;	0.20 0.21	e; e;	0.44 0.42	e; e;	e 0.14	e; e;	0.46 0.55	e; e;	2.36 3.27

(continued)

Table C-16 (continued) - 2

Location Site and Dates	Total Volume m ³	Indeno-[1,2,3-cd]-fluoranthene		Indeno-[1,2,3-cd]-pyrene		Benzo[ghi]-perylene		Anth-anthrene		Benzo[c]-chrysene		Dibenz[a,j]-anthracene		Dibenz[a,c]-anthracene/ Dibenz[a,h]-anthracene ^d		Benzo[b]-chrysene		Picene		Coronene	
Yuba City 10/17,23/86 Sample #2 Day	6,290	0.26; 0.26;	0.18 0.16	2.42; 2.46;	1.25 1.04	3.71; 3.79;	0.94 0.77	e; e;	e e	e; e;	0.04 0.03	e; e;	0.12 0.10	e; e;	0.29 0.24	e; e;	0.11 0.09	e; e;	0.28 0.25	0.56; 0.55;	1.02 0.84
Yuba City 10/16-17,18-19, 20-21,23-24/86 Sample #3 Night	15,501	0.29; 0.29;	0.17 0.15	3.13; 3.13;	1.31 1.09	7.21; 7.22;	1.37 1.14	0.52; 0.52;	0.06 0.05	e; e;	0.03 0.03	e; e;	0.15 0.15	e; e;	0.32 0.28	e; e;	0.15 0.13	e; e;	0.32 0.26	1.28; 1.22;	1.59 1.36
Concord 12/8,9/86; 1/19/87 Sample #1 Day	12,143	1.64; 1.71;	0.95 1.09	20.73; 21.12;	6.50 ^d 7.58 ^d	47.93; 47.10;	2.64 3.35	4.99; 5.39;	0.21 0.29	0.69; 0.71;	0.15 0.20	0.56; 0.61;	1.23 1.47	1.05; 1.07;	2.57 3.01	e; e;	1.39 1.57	e; e;	2.30 2.51	11.55; 14.70;	11.50 15.40
Concord 1/18,21,22/87 Sample #2 Day	12,737	1.83; 1.87;	1.88 2.14	18.61; 18.87;	14.03 ^d 16.11 ^d	28.92; 27.43;	17.35 21.11	3.86; 3.50;	1.90 2.38	1.04; 1.07;	0.58 0.69	0.74; 0.82;	1.75 2.17	1.20; 1.05;	3.56 4.10	e; 0.25;	2.03 2.00	0.54; 0.48;	3.71 3.67	3.92; 4.14;	9.49 12.32
Concord 12/6-7,7-8,8-9/86 Sample #3 Night	11,827	5.15; 5.05;	2.79 3.89	49.88; 48.19;	9.18 ^d 11.42 ^d	68.42; 68.66;	1.66 2.36	23.37; 24.21;	0.67 0.98	3.11; 3.14;	0.33 0.49	2.85; 2.87;	3.70 4.76	6.00; 6.05;	6.81 8.52	2.63; 2.67;	4.74 5.97	3.43; 3.43;	7.51 9.57	14.18; 15.59;	12.44 20.92
Concord 1/17-18,18-19, 21-22/87 Sample #4 Night	13,101	6.53; 6.44;	2.77 3.85	74.06; 72.42;	7.31 ^d 9.66 ^d	101.03; 96.93;	1.21 1.80	29.3; 27.54;	0.47 0.88	3.90; 3.75;	0.11 0.17	2.47; 2.43;	4.03 5.32	4.12; 3.89;	6.99 8.95	2.09; 2.10;	4.99 6.10	3.19; 3.10;	7.66 9.37	19.35; 15.92;	11.08 16.53
Concord 12/10-11/86; 1/14-15/87 Sample #5 Night	8,734	0.91; 0.91;	0.35 0.51	10.34; 10.43;	2.02 ^d 2.89 ^d	20.48; 20.86;	0.21 0.32	3.30; 3.41;	0.06 0.08	e; e;	0.04 0.06	e; e;	0.42 0.64	e; 0.70;	0.79 1.15	e; e;	0.52 0.66	e; e;	0.77 1.00	2.02; 2.83;	2.47 4.01

(continued)

Table C-16 (continued) - 3

Location Site and Dates	Total Volume m ³	Indeno-[1,2,3-cd]-fluoranthene		Indeno-[1,2,3-cd]-pyrene		Benzo[ghi]-perylene		Anth-anthrene		Benzo[c]-chrysene		Dibenz[a,j]-anthracene		Dibenz[a,c]-anthracene/ Dibenz[a,h]-anthracene ^c		Benzo[b]-chrysene		Picene		Coronene	
Mammoth Lakes 2/14, 16, 17, 21, 22, 26, 28/87 Sample #1 Day	22,320	5.86; 5.87;	2.77 3.67	56.02; 55.98;	17.07 ^d 20.05 ^d	82.92; 82.12;	10.29 13.19	19.57; 19.80;	1.61 2.43	2.82; 2.81;	0.36 0.50	3.50; 3.53;	3.01 4.14	6.10; 6.12;	5.67 7.21	3.27; 3.34;	3.74 4.85	3.53; 3.63;	4.73 6.05	12.96; 13.90;	24.99 37.40
Mammoth Lakes 2/16-17, 17-18, 20-21, 27-28; 2/28-3/1/87 Sample #2 Night	15,943	16.20; 15.85;	15.49 16.25	126.32; 123.49;	69.73 ^d 72.9 ^d	145.72; 141.00;	36.51 38.72	53.58; 51.74;	5.20 5.52	10.19; 9.98;	1.62 1.68	10.94; 10.75;	21.10 21.83	17.91; 18.04;	37.97 39.37	8.22; 8.07;	25.71 26.64	7.85; 7.75;	32.05 33.11	16.67; 16.27;	86.66 91.94
Mammoth Lakes 2/14-15, 15-16, 21-22, 22-23, 25-26/87 Sample #3 Night	13,475	2.36; 2.33;	3.54 3.82	18.86; 18.40;	19.24 ^d 20.21 ^d	26.83; 26.53;	12.69 13.35	9.72; 9.63;	1.37 1.52	1.55; 1.56;	0.47 0.61	1.39; 1.38;	4.18 4.56	1.02; 1.06;	9.16 9.74	1.00; 1.00;	5.16 5.40	0.95; 0.95;	6.64 6.90	1.37; 1.34;	20.11 21.19
Oildale 3/30, 31/87; 4/1, 2, 7, 8, 9, 10/87 Sample #1 Day	31,641	0.65; 0.64;	0.24 0.26	10.51 ^d ; 10.42 ^d ;	4.92 ^d 5.62 ^d	14.54; 14.58;	6.23 7.11	1.13; 1.10;	0.28 0.28	0.37; 0.29;	0.04 0.04	1.46; 1.64;	1.03 1.12	2.61; 1.98;	1.94 2.10	1.17; 1.06;	1.02 1.12	4.59; 4.23;	5.23 5.80	0.71; 0.66;	6.71 7.64
Oildale 3/29-30/87; 4/9-10, 10-11/87 Sample #2 Night	12,086	0.05; 0.05;	0.07 0.07	0.77; 0.77;	1.20 ^d 1.39 ^d	1.52; 1.51;	2.16 2.55	e; e;	e e	e; e;	e e	e; e;	0.14 0.16	e; e;	0.27 0.31	e; e;	0.13 0.14	e; e;	0.59 0.67	e; e;	1.51 1.73
Oildale 3/31-4/1/87; 4/1-2, 7-8, 8-9/87 Sample #3 Night	16,114	0.44; 0.44;	0.21 0.21	8.85; 8.80;	4.52 ^d 3.84 ^d	13.98; 13.92;	4.82 4.17	0.40; 0.40;	0.09 0.09	0.28; 0.42;	0.04 0.06	0.50; 0.50;	1.07 1.01	0.37; 0.36;	1.76 1.69	0.21; 0.21;	0.98 0.95	0.61; 0.60;	4.57 4.15	e; e;	3.57 3.28

(continued)

Table C-16 (continued) - 4

Location Site and Dates	Total Volume m ³	Indeno-[1,2,3-cd]-fluoranthene		Indeno-[1,2,3-cd]-pyrene		Benzo[ghi]-perylene		Anth-anthrene		Benzo[c]-chrysene		Dibenz[a,j]-anthracene		Dibenz[a,c]-anthracene/ Dibenz[a,h]-anthracene ^c		Benzo[b]-chrysene		Picene		Coronene	
Reseda 5/28,29,30,31/87; 6/1,2,14,15/87 Sample #1 Day	30,728	0.87; 0.89;	0.72 0.71	9.65; 9.54;	8.90 9.59	23.74; 23.23;	18.52 20.52	1.60; 1.36;	0.89 0.85	0.38; 0.41;	0.13 0.10	0.49; 0.49;	0.75 0.76	0.86; 0.88;	1.44 1.47	0.22; 0.22;	0.57 0.54	0.33; 0.34;	1.13 1.08	1.01; 1.09;	20.73 21.74
Reseda 5/27-28,28-29, 29-30,30-31,5/31- 6/1;6/1-2,2-3, 13-14,14-15/87 Sample #2 Night	34,436	0.38; 0.34;	0.38 0.39	3.73; 3.58;	5.43 3.54	8.16; 7.97;	11.39 3.15	0.18; 0.16;	0.24 0.26	0.18; 0.14;	e 0.05	0.17; 0.13;	0.30 0.48	0.30; 0.25;	0.69 1.07	0.06; e;	0.19 0.54	0.15; 0.13;	0.67 0.95	e; e;	7.89 6.00
Pt. Arguello 7/4,5,6,7,8,9, 10,11,12/87 Sample #1 Day	29,211	e; e;	e e	e; e;	0.01 0.01	e; e;	0.02 0.02	e; e;	e e	e; e;	e e	e; e;	e e	e; e;	e e	e; e;	e e	e; e;	e e	e; e;	0.01 0.01
Pt. Arguello 7/4-5,5-6,6-7, 7-8,8-9,9-10, 11-12/87 Sample #2 Night	25,492	e; e;	e e	e; e;	0.02 0.02	e; e;	0.04 0.04	e; e;	e e	e; e;	e e	e; e;	e e	e; e;	e e	e; e;	e e	e; e;	e e	e; e;	e e

^aSee Section V for full details of compositing.^bug values on the left are the amounts present in the 7-22 min HPLC fraction as determined by replicate GC/MS injections; values on the right are the amounts present in the 22-34 min HPLC.^cCompounds co-elute, therefore, amount given is their sum.^dCorrected for the contribution of the [m-2]⁺ fragment ion of dibenz[a,c]anthracene/dibenz[a,h]anthracene.^eNone detected or amount present too low to quantify.

Table C-17. Nitrofluoranthenes and Nitropyrenes (μg) Measured and the Total Volumes Sampled for Single or Composited Day/Night Sampling Intervals on TIGF Filters at the Seven Sites in California and at San Nicolas Island

Location Site and Dates ^a			μg ^b					
			Volume Sampled m ³	2-Nitro- fluor- anthene	3-Nitro- fluor- anthene	8-Nitro- fluor- anthene	1-Nitro- pyrene	2-Nitro- pyrene
Glendora 8/13/86	Sample #1	Day	4,078	0.897	c	0.015	0.104	0.073
				0.792	c	0.017	0.108	0.059
Glendora 8/13-14/86	Sample #2	Night	4,078	2.117	c	0.040	0.156	0.243
				1.923	c	0.030	0.143	0.186
Glendora 8/15, 16, 17, 18/86	Sample #3A ^d	Day	5,158	1.328	e	0.013	0.062	0.036
				1.146	e	0.011	0.055	0.030
Glendora 8/15-16, 16-17, 17-18, 18-19/86	Sample #4A ^d	Night	5,627	4.961	c	0.021	0.081	0.120
				4.831	c	0.017	0.078	0.111
Glendora 8/20/86	Sample #5	Day	4,078	1.376	c	0.013	0.059	0.053
				1.509	c	0.012	0.065	0.059
Glendora 8/20-21/86	Sample #6	Night	4,078	7.882	c	0.015	0.061	0.135
				8.201	c	0.015	0.059	0.125
Yuba City 10/16, 18, 20/86	Sample #1	Day	14,461	0.750	e	0.012	0.090	0.046
				0.760	e	c	0.108	0.048
Yuba City 10/17, 23/86	Sample #2	Day	6,290	1.573	c	0.017	0.091	0.107
				1.512	c	0.017	0.082	0.108
Yuba City 10/16-17, 18-19, 20-21, 23-24/86	Sample #3	Night	15,501	2.228	c	0.017	0.084	0.140
				2.543	c	0.024	0.102	0.144
Concord 12/8, 9/86; 1/19/87	Sample #1 ^f	Day	12,143	1.728	e	0.038	0.313	0.364
				1.722	e	0.040	0.321	0.363

(continued)

Table C-17 (continued) - 2

Location Site and Dates ^a			μg ^b					
			Volume Sampled m^3	2-Nitro- fluor- anthene	3-Nitro- fluor- anthene	8-Nitro- fluor- anthene	1-Nitro- pyrene	2-Nitro- pyrene
Concord 1/18,21,22/87	Sample #2 ^f	Day	12,737	6.195	c	0.044	0.235	0.698
				6.609	c	0.051	0.251	0.741
Concord 12/6-7,7-8,8-9/86	Sample #3 ^f	Night	11,827	2.526	c	0.123 ^g	0.502 ^g	0.589 ^g
				2.632	c	0.123 ^g	0.457 ^g	0.589 ^g
Concord 1/17-18,18-19,21-22/87	Sample #4 ^f	Night	13,101	5.057	c	0.176 ^g	0.593 ^g	1.065 ^g
				4.777	c	0.180 ^g	0.594 ^g	1.067 ^g
Concord 12/10-11/86; 1/14-15/87	Sample #5 ^f	Night	8,734	1.155	c	0.022	0.123	0.169
				1.087	c	0.017	0.117	0.166
Mammoth Lakes 2/14,16,17,21,22,26,28/87	Sample #1 ^f	Day	22,320	0.384	c	h	0.180	0.063
				0.389	c	h	0.190	0.071
Mammoth Lakes 2/16-17,17-18,20-21,27-28;2/28-3/1/87	Sample #2 ^f	Night	15,943	0.869 ^g	c	h	h	h
				0.970 ^g	c	h	h	h
Mammoth Lakes 2/14-15,15-16,21-22,22-23,25-26/87	Sample #3 ^f	Night	13,475	0.191 ^g	c	h	h	h
				0.190 ^g	c	h	h	h
Oildale 3/30,31/87; 4/1,2,7,8,9,10/87	Sample #1	Day	31,641	0.641	c	0.004	0.164	0.032
				0.720	c	c	0.169	0.030
Oildale 3/29-30/87; 4/9-10,10-11/87	Sample #2	Night	12,086	0.417	c	c	0.058	0.013
				0.432	c	c	0.061	0.011
Oildale 3/31-4/1/87; 4/1-2,7-8,8-9/87	Sample #3	Night	16,114	0.633	c	c	0.173	0.021
				0.597	c	c	0.169	0.028
				0.560	c	c	0.170	0.024

(continued)

Table C-17 (continued) - 3

Location Site and Dates ^a	Volume Sampled m ³	μg ^b				
		2-Nitro- fluor- anthene	3-Nitro- fluor- anthene	8-Nitro- fluor- anthene	1-Nitro- pyrene	2-Nitro- pyrene
Reseda Sample #1 Day 5/28,29,30,31/87; 6/1,2,14,15/87	30,728	7.468 7.239	c c	0.067 0.065	0.342 0.333	0.640 0.632
Reseda Sample #2 Night 5/27-28,28-29,29-30,30-31,5/31-6/1; 6/1-2,2-3,13-14,14-15/87	34,436	2.565 2.803	c c	0.024 0.025	0.178 0.195	0.183 0.202
Pt. Arguello Sample #1 Day 7/4,5,6,7,8,9,10,11,12/87	29,211	0.106 0.100	c c	c c	0.018 0.020	0.009 0.008
Pt. Arguello Sample #2 Night 7/4-5,5-6,6-7,7-8,8-9,9-10, 10-11,11-12/87	25,492	0.146 0.138	c c	c c	0.008 0.009	c c
San Nicolas Island Composite 6/19-20,24-26;7/13-16;8/27-30; 9/2-4/87	17,641	0.037 0.027	c c	c c	0.004 0.006	c c

^aSee Section V for full details of compositing.

^bReplicate or triplicate GC/MS injections.

^cNone detected.

^dExtracted with CH₂Cl₂, see Section VI for details.

^ePresent in an amount too small to quantify.

^fThree HPLC fractionations performed to isolate the nitrofluoranthenes and nitropyrenes.

^gQuantified on the response of the [M-NO₂]⁺ fragment ion due to interference or high background in the [M]⁺ ion trace.

^hBackground interferences too high to allow positive identification of nitroarene peaks.

Table C-18. Nitronaphthalenes, 9-Nitroanthracene and 7-Nitrobenz[a]anthracene (μg) Measured and the Total Volumes Sampled for Single or Composited Day/Night Sampling Intervals on TIGF Filters at the Seven Sites in California

Location Site and Dates ^a			Total Volume m^3	μg			
				1-Nitro- naphthalene	2-Nitro- naphthalene	9-Nitro- anthracene	7-Nitro- benz[a]- anthracene
Glendora	Sample #1	Day	4,078	0.261 0.255	b b	0.271 ^c 0.274 ^c	d
Glendora	Sample #2	Night	4,078	0.113 0.126	b b	0.392 ^c 0.386 ^c	d
Glendora	Sample #3A	Day	5,158	0.395 0.399	$\leq 0.093^e$ $\leq 0.093^e$	0.930 ^c 0.964 ^c	not analyzed
Glendora	Sample #4A	Night	5,627	0.182 0.175	$\leq 0.050^e$ $\leq 0.050^e$	1.423 ^c 1.376 ^c	not analyzed
Glendora	Sample #5	Day	4,078	0.051 0.057	b b	0.458 ^c 0.447 ^c	d
Glendora	Sample #6	Night	4,078	0.046 0.050	b b	1.073 ^c 1.001 ^c	d
Yuba City	Sample #1	Day	14,461	0.086 0.088	$\leq 0.048^e$ $\leq 0.036^e$	0.270 ^c 0.269 ^c	d
Yuba City	Sample #2	Day	6,290	0.079 0.091	$\leq 0.063^e$ $\leq 0.061^e$	f f	f
Yuba City	Sample #3	Night	15,501	0.113 0.097	$\leq 0.049^e$ $\leq 0.044^e$	f f	f

(continued)

Table C-18 (continued) - 2

Location Site and Dates ^a				Total Volume m ³	µg			
					1-Nitro- naphthalene	2-Nitro- naphthalene	9-Nitro- anthracene	7-Nitro- benz[a]- anthracene
Concord 12/8,9/86; 1/19/87	Sample #1	Day	12,143	0.067	≤0.052 ^e	1.337	0.17	
				0.064	≤0.059 ^e	1.298	0.17	
Concord 1/18,21,22/87	Sample #2	Day	12,737	0.110	b	3.409	0.31	
				0.110	b	3.351		
Concord 12/6-7,7-8,8-9/86	Sample #3	Night	11,827	0.121	≤0.068 ^e	3.689	0.52	
				0.095	≤0.076 ^e	4.129	0.53	
Concord 1/17-18,18-19,21-22/87	Sample #4	Night	13,101	0.182	b	8.749	g	
				0.218	b	8.584		
Concord 12/10-11/86; 1/14-15/87	Sample #5	Night	8,734	0.042	0.009	0.824	0.13	
				0.028	0.023	0.832		
Mammoth Lakes 2/14,16,17,21,22,26,28/87	Sample #1	Day	22,320	0.109	g	g	not analyzed	
				0.168	g	g		
Mammoth Lakes 2/16-17,17-18,20-21,27-28; 2/28-3/1/87	Sample #2	Night	15,943	g	g	g	not analyzed	
				g	g	g		
Mammoth Lakes 2/14-15,15-16,21-22,22-23,25-26/87	Sample #3	Night	13,475	g	g	g	not analyzed	
				g	g	g		
Oildale 3/30,31/87; 4/1,2,7,8,9,10/87	Sample #1	Day	31,641	0.071	b	0.194	not analyzed	
				0.062	b	0.206		
Oildale 3/29-30/87; 4/9-10,10-11/87	Sample #2	Night	12,086	0.066	b	0.266	not analyzed	
				0.060	b	0.279		

(continued)

Table C-18 (continued) - 3

Location Site and Dates ^a	Total Volume m ³	µg			
		1-Nitro- naphthalene	2-Nitro- naphthalene	9-Nitro- anthracene	7-Nitro- benz[a]- anthracene
Oildale Sample #3 Night 3/31-4/1/87; 4/1-2,7-8,8-9/87	16,114	0.053 0.066	b b	0.585 0.580	not analyzed
Reseda Sample #1 Day 5/28,29,30,31/87; 6/1,2,14,15/87	30,728	0.231 0.209	≤0.172 ^e ≤0.162 ^e	4.730 4.624	0.7 ^h
Reseda Sample #2 Night 5/27-28,28-29,29-30,30-31,5/31-6/1; 6/1-2,2-3,13-14,14-15/87	34,436	0.142	≤0.109 ^e	0.961	0.4 ^h
Pt. Arguello Sample #1 Day 7/4,5,6,7,8,9,10,11,12/87	29,211	0.057 ≤0.024	b b	≤0.037 b	not analyzed
Pt. Arguello Sample #2 Night 7/4-5,5-6,6-7,7-8,8-9,9-10, 10-11,11-12/87	25,492	0.042 ≤0.082	b b	b ≤0.052	not analyzed

^aSee Section V for full details of compositing.^bNone detected.^cLower limit, internal standard added after HPLC fractionation.^dPresent but not quantified, internal standard added after HPLC fractionation.^eUpper limit, possible interference.^fPresent but not quantified, due to impurities in internal standard.^gHigh background, none detected above background.^hApproximate value, additional internal standard added after HPLC fractionation.

APPENDIX D

Co-Pollutant Data

Hourly average O_3 and NO_x data are given for the sampling sites in California. NO_x data are unavailable for Yuba City. Unless otherwise noted, measurements were conducted by SAPRC personnel using ultraviolet photometric analysis (O_3) and chemiluminescence (NO_x).

Table D-1. Hourly Average O₃ Concentrations (ppb) Measured at Glendora, CA, August 1986^a

Time Period (PDT)	Date								
	8/13	8/14	8/15	8/16	8/17	8/18	8/19	8/20	8/21
00-01	b	b	b	b	b	b	b	b	b
01-02	b	b	b	b	b	b	b	b	b
02-03	b	b	b	b	b	b	b	b	b
03-04	b	b	b	b	b	b	10	30	b
04-05	b	b	b	b	10	b	10	30	b
05-06	b	b	b	b	20	b	20	20	b
06-07	b	b	b	b	30	b	30	20	b
07-08	b	b	b	b	30	b	20	30	b
08-09	b	b	b	b	30	b	10	10	b
09-10	10	10	b	10	60	20	40	b	10
10-11	10	20	10	30	80	20	70	20	30
11-12	40	60	30	60	130	40	100	40	60
12-13	80	90	70	110	170	80	150	110	
13-14	110	130	120	140	210	80	170	180	
14-15	120	130	150	160	220	150	190	200	
15-16	140	140	210	180	220	150	230	220	
16-17	160	210	190	220	240	220	160	150	
17-18	150	180	120	200	200	180	90	100	
18-19	120	160	90	170	120	120	50	80	
19-20	70	120	60	120	70	70	30	60	
20-21	40	80	30	60	30	40	10	20	
21-22	10	30	b	20	b	10	b	20	
22-23	b	10	b	10	b	b	b	10	
23-24	b	b	b	b	b	b	b	b	

^aValues as measured by Air Resources Board, Haagen-Smit Laboratory Division, using an ultraviolet photometric analyzer.

^bBelow detection limit.

Table D-2. Hourly Average O₃ Concentrations (ppb) Measured at Yuba City, CA, October 1986^a

Time Period (PDT)	Date									
	10/16	10/17	10/18	10/19	10/20	10/21	10/22	10/23	10/24	10/25
00-01	20	b	20	30	20	b	c	30	10	10
01-02	b	20	10	20	20	20	b	c	40	10
02-03	20	c	c	c	c	c	c	c	c	c
03-04	20	20	b	20	10	20	b	10	30	10
04-05	20	20	b	20	b	10	b	10	30	b
05-06	20	20	b	20	10	10	b	10	20	10
06-07	20	10	b	20	10	b	b	b	20	b
07-08	10	10	10	10	10	b	b	10	20	b
08-09	30	10	10	10	10	b	b	20	20	b
09-10	30	20	10	10	10	10	c	30	20	10
10-11	40	30	10	20	20	20	20	40	30	20
11-12	40	30	20	30	30	40	30	40	30	30
12-13	50	40	30	40	40	50	40	40	40	30
13-14	60	50	30	40	50	70	50	50	40	50
14-15	70	50	30	40	60	70	60	70	50	60
15-16	70	50	30	50	70	70	60	60	50	60
16-17	60	40	40	50	110	70	c	40	40	60
17-18	50	30	30	40	100	60	c	30	40	50
18-19	40	20	30	30	70	20	c	20	20	30
19-20	30	20	30	40	50	10	c	10	20	10
20-21	10	10	30	40	40	b	c	10	20	b
21-22	10	b	20	30	10	b	c	10	20	b
22-23	10	b	20	20	20	b	c	30	20	b
23-24	20	b	20	30	20	20	c	30	10	b

^aValues as measured by Air Resources Board, Yuba City Station, using an ultraviolet photometric analyzer.

^bBelow detection limit.

^cNo data available.

Table D-3. Hourly Average O₃ Concentrations (ppb) Measured at Concord, CA, December 1986 and January 1987

Time Period (PST)	Date																	
	1986							1987										
	12/6	12/7	12/8	12/9	12/10	12/11	12/12	1/12	1/13	1/14	1/15	1/16	1/17	1/18	1/19	1/20	1/21	1/22
00-01		a	<10	10	<10	<10	<10		<10	<10	40		30	20	10	40	<10	10
01-02		a	<10	10	<10	<10	<10		<10	<10	40		40	<10	20	40	<10	10
02-03		a	<10	10	<10	<10	<10		<10	10	40		30	10	30	40	<10	10
03-04		a	<10	<10	<10	<10	<10		<10	10	40		30	10	30	40	10	<10
04-05		a	<10	<10	<10	<10	<10		<10	<10	40		30	10	20	30	<10	<10
05-06		a	<10	<10	<10	<10	<10		<10	10	40		30	10	<10	30	<10	<10
06-07		<10	<10	<10	<10	<10	<10		<10	<10	30		30	<10	<10	30	<10	<10
07-08		<10	<10	<10	<10	<10	<10		<10	<10	30		20	<10	<10	30	<10	<10
08-09		10	<10	<10	<10	<10	<10		<10	<10	30		20	<10	<10		20	<10
09-10		20	<10	<10	<10	<10	10		<10	<10			20	<10	10		20	20
10-11		40	10	30	<10	<10	10		20	20			30	10	20		30	20
11-12		40	20	30	10	<10	<10		20	20			30	20	40		40	30
12-13		40	20	30	10	<10	<10		30	40			30	30	40		50	30
13-14		40	30	40	10	<10	<10		40	30			30	30	40		50	30
14-15		40	30	40	10	<10	<10		40	30			30	40	40		60	30
15-16	30	40	30	40	10	<10	<10		40	30			30	40	40		50	20
16-17	20	40	20	20	<10	<10	<10		40	20			30	40	40		40	20
17-18	<10	10	10	10	<10	<10	<10		30	<10			20	30	30		20	20
18-19	<10	10	<10	10	<10	<10	<10		20	<10			10	20	30	10	10	
19-20	<10	10	<10	10	<10	<10	<10		20	10			10	20	30	10	a	
20-21	<10	10	a	10	<10	<10	<10	<10	10	20		20	20	20	30	10	10	
21-22	<10	10	10	15	<10	<10	<10	<10	10	10		10	20	20	40	10	<10	
22-23	<10	10	10	15	<10	<10	<10	<10	10	10		10	30	10	40	<10	<10	
23-24	a	10	10	10	<10	<10	<10	<10	<10	10		30	20	<10	40	10	<10	

^aBelow detection limit.

Table D-4. Hourly Average O₃ Concentrations (ppb) Measured at Mammoth Lakes, CA, February and March 1987

Time Period (PST)	Date													
	2/14	2/15	2/16	2/17	2/18	2/20	2/21	2/22	2/23	2/25	2/26	2/27	2/28	3/1
00-01	40	40	40	30	40		50	50	a		a	50	40	a
01-02	30	40	30	30	40		50	a	a		a	50	40	a
02-03	30	40	40	30	30		a	a	a		a	40	a	a
03-04	40	40	40	30	40		a	a	a		a	40	a	a
04-05	40	40	30	30	40		30	40	40		40	40	30	30
05-06	20	40	30	30	40		30	40	40		30	40	40	30
06-07	30	40	30	30	40		40	40	40		30	40	40	40
07-08	30	40	40	30	40		40	40	40		a	30	30	40
08-09	40	40	40	30	40		40	40	40		a	30	30	30
09-10	40	40	40	40	40		40	40			40	30	40	
10-11	40	40	40	40	40		50	50			50	40	40	
11-12	40	40	40	40			50	50			40	40	40	
12-13	50	40	40	40			50	50			40	40	a	
13-14	40	40	40	40		40	40	50			50	40	40	
14-15	40	40	40	40		50	50	50			50	40	40	
15-16	40	40	40	40		50	50	50			50	40	40	
16-17	40	40	40	40		50	50	50			50	40	40	
17-18	30	40	40	40		40	40	50			40	40	40	
18-19	30	40	30	30		40	50	40		40	40	40	30	
19-20	30	40	40	40		40	40	40		40	40	30	30	
20-21	30	40	40	40		40	40	50		40	40	30	30	
21-22	40	a	40	40		40	40	50		40	40	30	30	
22-23	40	a	40	40		40	40	a		40	40	40	40	
23-24	40	a	40	40		50	40	a		40	50	40	a	

^aBelow detection limit.

Table D-5. Hourly Average O₃ Concentrations (ppb) Measured at Oildale, CA, March and April 1987^a

Time Period (PDT)	Date									
	3/29	3/30	3/31	4/1	4/2	4/7	4/8	4/9	4/10	4/11
00-01	20	20	20	20	30	20	30	20	20	30
01-02	20	20	20	30	30	c	20	20	30	20
02-03	20	30	20	60	30	c	10	20	30	10
03-04	10	10	10	60	40	c	c	c	c	c
04-05	20	10	10	60	30	c	c	c	c	c
05-06	20	20	20	50	30	c	10	20	10	10
06-07	20	20	20	20	20	c	10	10	10	10
07-08	20	30	20	20	30	c	10	10	10	10
08-09	30	40	10	30	40	c	20	20	20	10
09-10	40	50	20	30	40	c	20	30	40	10
10-11	c	c	c	c	c	c	30	40	50	20
11-12	50	50	40	60	70	c	50	50	60	20
12-13	50	50	40	70	c	50	60	60	70	20
13-14	50	50	50	70	110	60	60	60	80	30
14-15	50	50	60	70	100	60	60	60	80	30
15-16	50	60	50	70	c	60	60	c	60	30
16-17	50	60	50	70	90	c	60	70	60	40
17-18	40	70	50	60	90	c	70	60	70	40
18-19	40	60	50	50	70	c	60	60	70	40
19-20	40	50	50	40	50	c	50	40	70	40
20-21	20	40	40	40	40	50	50	50	70	40
21-22	30	30	20	30	30	40	30	40	60	40
22-23	40	30	10	30	30	20	30	40	50	40
23-24	20	30	10	30	30	20	30	30	40	30

^aValues as measured by Air Resources Board, Oildale Station, using an ultraviolet photometric analyzer.

^bTimes are PST for 3/29/87 through 4/2/87; PDT for 4/7/87 through 4/11/87.

^cNo data available.

Table D-6. Hourly Average O₃ Concentration (ppb) Measured at Reseda, CA, May and June 1987^a

Time Period (PDT)	Date										
	5/27	5/28	5/29	5/30	5/31	6/1	6/2	6/3	6/13	6/14	6/15
00-01	b	b	b	b	b	b	20	10	10	20	10
01-02	10	b	b	b	b	b	30	10	b	b	20
02-03	10	b	b	b	b	b	10	20	b	b	20
03-04	b	b	b	b	b	b	b	10	b	10	20
04-05	b	b	b	b	b	b	b	b	b	30	10
05-06	b	b	b	b	b	b	b	b	b	40	10
06-07	b	b	b	b	b	b	b	b	b	30	10
07-08	b	b	b	b	b	10	b	10	10	30	10
08-09	20	10	10	10	20	20	10	20	20	30	20
09-10	30	20	20	50	50	60	40	50	30	40	30
10-11	30	40	30	60	70	80	90	80	60	40	40
11-12	40	50	50	80	90	90	110	110	100	50	40
12-13	50	60	60	100	100	110	100	130	130	70	50
13-14	50	60	70	100	110	110	80	130	130	80	50
14-15	60	70	80	80	100	100	80	150	120	90	50
15-16	70	60	70	80	80	80	70	120	90	90	40
16-17	70	60	50	80	70	70	50	70	80	70	40
17-18	80	50	50	70	90	70	60	70	80	60	30
18-19	80	50	50	70	90	60	100	60	80	60	30
19-20	80	40	40	60	70	40	50	50	60	40	30
20-21	60	b	10	40	40	20	40	40	30	40	20
21-22	30	b	b	30	10	30	b	30	20	30	30
22-23	10	b	b	20	10	30	b	10	10	20	20
23-24	c	c	c	c	c	b	20	10	10	20	10

^aValues as measured by Air Resources Board, Reseda Station, using an ultraviolet photometric analyzer.

^bBelow detection limit.

^cNo data available.

Table D-7. Hourly Average O₃ Concentrations (ppb) Measured at Pt. Arguello, CA, July 1987

Time Period (PDT)	Date										
	7/4	7/5	7/6	7/7	7/8	7/9	7/10	7/11	7/12	7/13	7/14
00-01		20	30	30	20	30	40	40	40	30	30
01-02		20	30	30	20	30	40	40	30	30	30
02-03		20	30	30	20	30	30	40	30	30	30
03-04		20	30	30	20	30	30	30	30	30	30
04-05		20	30	30	20	30	30	30	30	30	30
05-06	30	20	30	30	20	30	30	30	30	30	30
06-07	30	30	30	30	20	30	30	30	30	30	
07-08	30	30	20	30	20	30	30	30	30	30	
08-09	30	30	20	30	a	30	30	a	30	30	
09-10	30	30	30	30	20	30	30	30	30	30	
10-11	30	30	30	40	20	30	40	30	30	30	
11-12	30	30	30	40	20	40	40	30	a	30	
12-13	30	30	30	40	20	40	40	40	40	40	
13-14	40	30	30	40	20	40	40	40	40	40	
14-15	30	30	40	40	30	40	40	40	30	40	
15-16	30	30	40	40	20	40	40	40	30	40	
16-17	30	30	40	40	30	40	40	40	30	30	
17-18	30	a	40	40	30	40	40	40	40	30	
18-19	30	30	30	30	30	30	40	40	40	30	
19-20	20	30	30	30	30	40	40	40	40	30	
20-21	20	30	30	30	30	30	30	40	40	30	
21-22	20	20	30	30	30	40	40	40	40	30	
22-23	20	20	30	20	20	40	30	40	30	30	
23-24	20	20	30	20	30	40	30	40	30	30	

^aBelow detection limit.

Table D-8. Hourly Average NO_x Concentrations (ppb) Measured at Glendora, CA, August 1986

Time Period (PDT)	Date								
	8/13	8/14	8/15	8/16	8/17	8/18	8/19	8/20	8/21
00-01	110	70	90	100	a	60	50	70	30
01-02	100	100	90	90	a	70	60	60	50
02-03	110	90	80	90	a	70	40	40	50
03-04	100	80	80	70	a	60	20	40	100
04-05	100	90	80	80	a	80	10	40	110
05-06	100	90	100	80	a	60	30	40	100
06-07	110	90	120	70	a	60	50	60	120
07-08	150	100	100	90	a	70	70	90	110
08-09	140	120	100	110	a	70	40	200	
09-10	160	120	80	70	a	110	40	220	
10-11	120	100	80	70	a	120	20	180	
11-12	90	90	80	80	a	110	30	90	
12-13	80	70	70	50	a	70	30	70	
13-14	80	70	60	20	50	40	40	40	
14-15	70	70	80	20	60	30	50	30	
15-16	80	80	80	40	50	70	60	70	
16-17	60	80	80	50	70	80	60	70	
17-18	50	80	70	60	50	80	40	60	
18-19	70	70	70	60	50	80	70	80	
19-20	80	80	60	60	70	70	90	100	
20-21	70	90	80	70	90	70	80	90	
21-22	90	90	80	80	50	70	50	90	
22-23	100	80	80	70	60	80	20	90	
23-24	90	90	80	50	60	80	50	20	

^aNo data available.

Table D-9. Hourly Average NO_x Concentrations (ppb) Measured at Concord, CA, December 1986 and January 1987

Time Period (PST)	Date																	
	1986							1987										
	12/6	12/7	12/8	12/9	12/10	12/11	12/12	1/12	1/13	1/14	1/15	1/16	1/17	1/18	1/19	1/20	1/21	1/22
00-01		120	100	30	160	130	40		80	60	<10		<10	140	70	<10	100	270
01-02		80	80	70	170	120	30		70	60	<10		<10	100	30	<10	90	280
02-03		70	60	150	160	90	20		30	40	<10		10	180	30	<10	130	280
03-04		70	70	130	140	50	30		20	40	<10		a	180	30	<10	160	200
04-05		70	90	120	150	50	40		20	40	<10		a	180	160	<10	160	140
05-06		50	120	120	130	60	30		50	60	<10		a	160	140	<10	150	180
06-07		40	160	130	100	70	40		60	80	<10		a	100	130	<10	100	270
07-08		70	150	220	180	60	30		90	300	<10		10	140	150	10	90	150
08-09		60	400	230	a	50	30		140	280	<10		10	140	290		40	70
09-10		60	200	180	100	40	30		160	160			20	150	190		40	60
10-11		<10	40	30	100	30	30		80	80			20	80	80		30	50
11-12		<10	20	20	90	50	50		50	70			10	80	20		30	60
12-13		<10	20	10	60	50	40		40	60			20	40	10		30	a
13-14		<10	20	10	50	60	40		10	50			20	40	<10		20	a
14-15		<10	30	10	40	60	50		10	40			30	30	10		20	40
15-16	20	<10	30	20	30	60	60		10	40			30	20	10		30	60
16-17	30	<10	30	50	40	60	50		10	50			30	20	<10		50	70
17-18	90	50	40	50	80	60	50		10	90			60	30	20		50	60
18-19	130	100	50	70	100	60	60		30	60			70	70	20	140	80	
19-20	120	200	60	180	90	60	60		90	40			180	160	10	160	a	
20-21	110	150	90	220	100	40	60		110	20		160	200	140	10	120	80	
21-22	100	120	270	290	120	30	30	40	120	40		210	220	140	<10	150	90	
22-23	110	100	240	300	140	30	30	120	90	60		60	210	140	<10	150	70	
23-24	110	120	140	220	140	40	20	160	80	70		110	180	110	<10	140	90	

a Below detection limit.

Table D-10. Hourly Average NO_x Concentrations (ppb) Measured at Mammoth Lakes, CA, February and March 1987

Time Period (PST)	Date													
	2/14	2/15	2/16	2/17	2/18	2/20	2/21	2/22	2/23	2/25	2/26	2/27	2/28	3/1
00-01	10	a	20	10	10		20	20	10		10	a	10	10
01-02	20	a	20	10	10		20	a	a		10	a	10	10
02-03	20	a	10	20	10		20	a	a		10	20	10	10
03-04	10	a	10	10	10		10	a	a		20	10	20	a
04-05	10	a	10	10	10		20	<10	<10		10	<10	<10	<10
05-06	50	a	10	10	<10		20	<10	<10		10	<10	<10	<10
06-07	20	a	10	10	<10		20	10	10		a	10	10	10
07-08	30	a	20	20	10		20	20	<10		20	20	20	10
08-09	30	10	20	20	10		20	20	10		20	30	20	20
09-10	20	10	30	10	10		20	10			<10	30	20	
10-11	30	a	20	<10	20		10	10			<10	10	10	
11-12	30	10	10	<10			10	10			<10	10	10	
12-13	30	10	<10	<10			20	10			<10	10	10	
13-14	20	20	<10	<10		<10	10	10			<10	<10	10	
14-15	20	10	10	10		<10	10	10			<10	<10	<10	
15-16	20	10	10	10		10	10	10			<10	<10	<10	
16-17	20	20	<10	<10		10	20	10			20	<10	20	
17-18	20	20	20	30		10	20	10			10	10	20	
18-19	20	30	30	30		20	20	10		<10	20	20	40	
19-20	20	20	30	10		20	30	10		<10	20	30	30	
20-21	20	20	20	10		20	10	20		<10	20	30	20	
21-22	20	20	20	10		20	20	10		<10	20	20	20	
22-23	a	20	20	10		20	20	20		<10	20	20	20	
23-24	a	a	10	10		10	20	10		<10	20	20	10	

^aBelow detection limit.

Table D-11. Hourly Average NO_x Concentrations (ppb) Measured at Oildale, CA, March and April 1987^a

Time Period ^b (PDT)	Date									
	3/29	3/30	3/31	4/1	4/2	4/7	4/8	4/9	4/10	4/11
00-01	30	30	30	30	20	50	40	30	10	10
01-02	30	30	30	10	10	30	40	40	30	20
02-03	30	20	20	10	10	30	60	40	30	20
03-04	40	30	40	20	10	30	c	c	c	c
04-05	30	40	30	10	10	50	c	c	c	c
05-06	30	30	20	20	10	50	50	30	50	10
06-07	30	30	50	30	30	50	60	60	50	20
07-08	30	30	60	50	30	40	70	80	60	50
08-09	30	10	120	30	20	40	40	50	40	40
09-10	20	10	50	30	20	40	40	40	20	30
10-11	c	c	c	c	c	c	40	30	20	10
11-12	10	10	10	10	10	20	30	30	20	10
12-13	10	10	10	10	c	30	30	20	10	10
13-14	10	d	10	10	20	30	20	20	10	10
14-15	d	d	10	10	20	20	20	20	10	10
15-16	10	10	10	10	20	20	20	c	10	10
16-17	10	10	10	10	20	c	20	10	10	10
17-18	10	10	10	10	20	c	20	10	10	10
18-19	10	20	20	10	30	c	20	10	10	10
19-20	10	20	10	20	30	c	30	20	10	10
20-21	30	20	20	10	20	20	20	10	20	10
21-22	20	20	30	10	20	20	40	20	10	10
22-23	20	20	40	20	20	50	40	30	10	10
23-24	30	20	50	20	10	40	40	30	10	10

^aValues as measured by Air Resources Board, Oildale Station, using a chemiluminescent detector.

^bTimes are PST for 3/29/87 through 4/2/87; PDT for 4/7/87 through 4/11/87.

^cNo data available.

^dBelow detection limit.

Table D-12. Hourly Average NO_x Concentrations (ppb) Measured at Reseda, CA, May and June 1987^a

Time Period (PDT)	Date										
	5/27	5/28	5/29	5/30	5/31	6/1	6/2	6/3	6/13	6/14	6/15
00-01	70	100	80	130	100	110	40	120	50	30	30
01-02	20	80	70	100	110	120	70	40	70	60	20
02-03	20	80	60	90	110	130	80	40	70	60	20
03-04	20	70	80	90	140	120	90	60	70	40	20
04-05	40	70	60	140	160	120	100	80	80	20	20
05-06	50	80	80	110	140	120	110	80	90	20	40
06-07	70	110	110	140	130	150	130	100	110	20	60
07-08	70	110	130	110	110	180	160	90	50	30	50
08-09	40	110	100	90	80	140	160	100	50	30	30
09-10	30	60	90	30	50	60	130	90	60	20	30
10-11	30	50	90	40	50	40	80	70	60	20	20
11-12	20	40	60	40	30	60	70	60	50	30	20
12-13	10	30	60	30	30	40	60	60	50	30	20
13-14	10	20	50	20	20	30	30	50	40	30	20
14-15	10	10	30	10	10	30	20	40	30	30	20
15-16	20	10	30	10	10	20	20	40	30	30	20
16-17	20	10	30	10	b	20	30	30	30	30	20
17-18	20	10	30	10	10	30	40	30	30	30	20
18-19	20	20	20	10	10	40	30	30	40	30	20
19-20	10	20	30	20	20	50	60	30	40	30	20
20-21	20	50	60	30	50	60	70	30	60	20	20
21-22	30	60	60	40	70	60	90	30	60	20	20
22-23	40	50	60	40	90	70	90	100	50	20	20
23-24	c	c	c	c	c	c	c	c	c	c	c

^aValues as measured by Air Resources Board, Reseda Station, using a chemiluminescent detector.

^bBelow detection limit.

^cNo data available.

Table D-13. Hourly Average NO_x Concentrations (ppb) Measured at Pt. Arguello, CA, July 1987

Time Period (PDT)	Date										
	7/4	7/5	7/6	7/7	7/8	7/9	7/10	7/11	7/12	7/13	7/14
00-01	<10	<10	<10	<10	<10	<10	<10	a	<10	<10	<10
01-02	<10	<10	<10	<10	<10	<10	<10	a	<10	<10	<10
02-03	<10	<10	<10	<10	<10	<10	<10	a	<10	<10	<10
03-04	<10	<10	<10	<10	<10	<10	<10	a	<10	<10	<10
04-05	<10	<10	<10	<10	<10	<10	<10	a	<10	<10	<10
05-06	<10	<10	<10	<10	<10	<10	<10	a	<10	<10	<10
06-07	<10	<10	<10	<10	<10	<10	<10	a	<10	<10	<10
07-08	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
08-09	<10	<10	<10	<10	a	<10	<10	a	<10	<10	
09-10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
10-11	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
11-12	<10	<10	<10	<10	<10	<10	<10	<10	a	<10	
12-13	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
13-14	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
14-15	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
15-16	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
16-17	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
17-18	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
18-19	<10	<10	<10	<10	<10	a	<10	<10	<10	<10	
19-20	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
20-21	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
21-22	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
22-23	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
23-24	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	

^aBelow detection limit.

CARB LIBRARY



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