APPENDIX AVAILABLE ON REQUEST

Research Report 143

Measurement and Modeling of Exposure to Selected Air Toxics for Health Effects Studies and Verification by Biomarkers

Roy M. Harrison et al.

Appendix 17. VOC and PAH Database Correlation

Note: Appendices Available on the Web appear in a different order than in the original Investigators' Report. HEI has not changed these documents.

Correspondence may be addressed to Dr. Roy Harrison, University of Birmingham, Division of Environmental Health and Risk Management, Edgbaston Park Road School of Geography, Earth, and Environmental Sciences, Birmingham B15 2TT, United Kingdom, r.m.harrison@bham.ac.uk

Although this document was produced with partial funding by the United States Environmental Protection Agency under Assistance Award CR–83234701 to the Health Effects Institute, it has not been subjected to the Agency's peer and administrative review and therefore may not necessarily reflect the views of the Agency, and no official endorsement by it should be inferred. The contents of this document also have not been reviewed by private party institutions, including those that support the Health Effects Institute; therefore, it may not reflect the views or policies of these parties, and no endorsement by them should be inferred.

This document was reviewed by the HEI Health Review Committee
but did not undergo the HEI scientific editing and production process.

APPENDIX 17: VOC AND PAH DATABASE CORRELATION

Table A17.1. Correlation of VOC personal exposure Log transformed database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	n-Hexane															
2.	Benzene	**0.64**														
3.	Toluene	**0.59**	**0.64**													
4.	Ethylbenzene	**0.67**	**0.67**	**0.66**												
5.	p-Xylene	**0.63**	**0.65**	**0.65**	**0.94**											
6.	m-Xylene	**0.63**	**0.66**	**0.65**	**0.97**	**0.98**										
7.	Pyridine	**0.32**	**0.30**	**0.29**	**0.22**	**0.18**	**0.19**									
8.	o-Xylene	**0.63**	**0.63**	**0.64**	**0.95**	**0.97**	**0.97**	**0.19**								
9.	1,3,5-Trimethylbenzene	**0.59**	**0.61**	**0.63**	**0.76**	**0.79**	**0.80**	**0.26**	**0.83**							
10.	Styrene	**0.44**	**0.45**	**0.55**	**0.55**	**0.49**	**0.49**	**0.41**	**0.50**	**0.46**						
11.	p-Isopropyltoluene	**0.19**	**0.23**	**0.38**	**0.29**	**0.31**	**0.30**	**0.30**	**0.31**	**0.44**	**0.40**					
12.	1,2,4-Trimethylbenzene	**0.55**	**0.60**	**0.63**	**0.74**	**0.79**	**0.78**	**0.22**	**0.82**	**0.96**	**0.44**	**0.43**				
13.	3-Ethenylpyridine	**0.35**	**0.39**	**0.36**	**0.30**	**0.29**	**0.31**	**0.78**	**0.32**	**0.38**	**0.33**	**0.25**	**0.35**			
14.	Naphthalene	**0.41**	**0.49**	**0.42**	**0.47**	**0.51**	**0.50**	**0.21**	**0.53**	**0.54**	**0.36**	**0.34**	**0.55**	**0.22**		
15.	1,3-Butadiene	**0.15**	**0.35**	**0.31**	**0.26**	**0.26**	**0.28**	**0.21**	**0.23**	**0.24**	**0.31**	**0.19**	**0.25**	**0.28**	**0.14**	

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.2. Correlation of VOC personal exposure database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	n-Hexane															
2.	Benzene	**0.53**														
3.	Toluene	**0.56**	**0.67**													
4.	Ethylbenzene	**0.41**	**0.40**	**0.42**												
5.	p-Xylene	**0.37**	**0.39**	**0.39**	**0.98**											
6.	m-Xylene	**0.33**	**0.33**	**0.35**	**0.98**	0.99										
7.	Pyridine	**0.14**	**0.32**	**0.22**	0.08	0.05	0.07									
8.	o-Xylene	**0.44**	**0.47**	**0.49**	**0.96**	**0.97**	**0.96**	**0.14**								
9.	1,3,5-Trimethylbenzene	**0.38**	**0.40**	**0.43**	**0.38**	**0.38**	**0.36**	0.04	**0.52**							
10.	Styrene	0.09	**0.14**	0.08	**0.22**	0.06	0.06	0.07	0.08	0.03						
11.	p-Isopropyltoluene	0.03	**0.21**	**0.25**	0.11	0.09	0.10	**0.36**	**0.20**	**0.39**	0.05					
12.	1,2,4-Trimethylbenzene	**0.44**	**0.51**	**0.52**	**0.42**	**0.42**	**0.39**	0.05	**0.56**	**0.97**	0.04	**0.37**				
13.	3-Ethenylpyridine	**0.15**	**0.30**	**0.22**	0.08	0.06	0.07	**0.94**	**0.13**	0.08	0.02	**0.26**	0.10			
14.	Naphthalene	**0.28**	**0.36**	**0.27**	**0.18**	**0.17**	**0.15**	0.08	**0.21**	**0.19**	0.06	**0.12**	**0.24**	0.09		
15.	1,3-Butadiene	0.02	**0.13**	0.08	0.01	0.00	0.01	**0.22**	0.00	0.02	0.02	0.07	0.03	**0.24**	0.05	

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.3. Correlation of PAH personal exposure Log transformed database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.	Acenaphthalene																
2.	Acenaphthene	-0.17															
3.	Fluorene	-0.70	0.94														
4.	Phenanthrene	0.30	**0.43**	-0.10													
5.	Anthracene	0.19	0.20	-0.49	**0.73**												
6.	Fluoranthene	0.07	0.21	-0.24	**0.78**	**0.73**											
7.	Pyrene	0.18	0.12	-0.24	**0.61**	**0.63**	**0.85**										
8.	Benzo(a)anthracene	0.04	-0.08	-0.38	0.20	0.22	**0.47**	**0.57**									
9.	Chrysene	0.18	-0.01	-0.26	**0.39**	**0.35**	**0.63**	**0.75**	**0.82**								
10.	Benzo(b)fluoranthene	0.20	0.01	0.01	**0.33**	**0.41**	**0.45**	**0.60**	**0.68**	**0.83**							
11.	Benzo(k)fluoranthene	0.21	-0.03	0.07	**0.37**	**0.38**	**0.54**	**0.66**	**0.72**	**0.88**	**0.90**						
12.	Benzo(a)pyrene	0.25	0.00	-0.01	**0.36**	**0.34**	**0.51**	**0.62**	**0.78**	**0.79**	**0.81**	**0.86**					
13.	Indeno(1,2,3-cd)pyrene	0.25	-0.04	0.09	**0.35**	**0.35**	**0.49**	**0.55**	**0.70**	**0.71**	**0.78**	**0.83**	**0.85**				
14.	Dibenz(a,h)anthracene	0.17	-0.01	-0.06	**0.27**	**0.30**	**0.47**	**0.51**	**0.66**	**0.80**	**0.83**	**0.85**	**0.87**	**0.83**			
15.	Benzo(ghi)perylene	0.22	-0.03	0.15	**0.39**	**0.37**	**0.51**	**0.59**	**0.67**	**0.83**	**0.89**	**0.91**	**0.87**	**0.89**	**0.81**		
16.	Coronene	0.13	0.03	0.23	**0.34**	**0.30**	**0.37**	**0.41**	**0.57**	**0.67**	**0.81**	**0.86**	**0.84**	**0.87**	**0.73**	**0.95**	

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

APPENDIX 17: VOC AND PAH DATABASE CORRELATION

Table A17.4. Correlation of PAH personal exposure database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Acenaphthalene																
2. Acenaphthene	0.67															
3. Fluorene	**0.42**	-0.14														
4. Phenanthrene	0.39	-0.52	**0.85**													
5. Anthracene	-0.07	-0.55	**0.58**	**0.53**												
6. Fluoranthene	-0.05	-0.48	**0.54**	**0.53**	**0.93**											
7. Pyrene	-0.12	-0.43	0.07	0.09	**0.56**	**0.68**										
8. Benzo(a)anthracene	-0.11	-0.47	0.09	0.11	**0.56**	**0.68**	**0.99**									
9. Chrysene	-0.10	-0.13	0.06	0.09	**0.52**	**0.65**	**0.99**	**0.99**								
10. Benzo(b)fluoranthene	-0.10	-0.05	0.06	0.08	**0.52**	**0.64**	**0.99**	**0.99**	**1.00**							
11. Benzo(k)fluoranthene	-0.10	-0.16	0.06	0.08	**0.52**	**0.64**	**0.99**	**0.99**	**1.00**	**1.00**						
12. Benzo(a)pyrene	-0.10	0.01	0.05	0.07	**0.50**	**0.62**	**0.99**	**0.98**	**0.99**	**1.00**	**1.00**					
13. Indeno(1,2,3-cd)pyrene	-0.07	-0.26	0.13	0.14	**0.69**	**0.80**	**0.90**	**0.87**	**0.86**	**0.86**	**0.85**	**0.84**				
14. Dibenz(a,h)anthracene	-0.09	0.04	0.08	0.09	**0.51**	**0.64**	**0.98**	**0.98**	**0.99**	**0.99**	**0.99**	**1.00**	**0.84**			
15. Benzo(ghi)perylene	-0.09	0.09	0.07	0.08	**0.49**	**0.62**	**0.98**	**0.98**	**0.99**	**0.99**	**0.99**	**1.00**	**0.82**	**1.00**		
16. Coronene	0.04	0.06	-0.08	-0.07	-0.03	-0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.5. Correlation of PAH with VOC personal exposure Log transformed database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	0.16	0.23	0.30	0.24	0.24	0.24	0.06	0.24	0.13	0.26	0.33	0.12	0.11	0.21	**0.41**
Acenaphthene	-0.12	0.02	0.04	0.07	0.02	0.04	-0.14	0.01	-0.05	0.00	-0.24	-0.04	-0.02	0.10	0.17
Fluorene	-0.49	-0.38	0.17	0.14	0.15	0.13	-0.52	0.05	0.22	-0.56	-0.39	0.10	-0.24	-0.48	-0.45
Phenanthrene	0.24	**0.37**	0.14	0.33	0.33	**0.35**	-0.01	0.30	0.18	0.19	-0.05	0.09	0.18	0.20	**0.39**
Anthracene	0.24	**0.36**	0.16	0.29	0.33	**0.35**	-0.04	0.31	0.22	0.14	0.08	0.14	0.15	0.10	**0.35**
Fluoranthene	0.07	**0.31**	0.06	0.25	0.26	0.29	-0.05	0.26	0.17	0.04	0.00	0.07	0.18	0.16	0.27
Pyrene	0.11	**0.51**	0.26	0.30	0.29	**0.32**	-0.06	**0.31**	0.22	0.24	0.14	0.16	0.08	**0.33**	0.22
Benzo(a)anthracene	0.03	**0.34**	0.13	0.08	0.10	0.13	0.14	0.10	0.11	0.06	0.02	0.12	**0.31**	0.14	0.12
Chrysene	0.10	**0.47**	0.23	0.15	0.14	0.18	0.20	0.15	0.15	0.13	-0.02	0.13	**0.36**	0.16	**0.30**
Benzo(b)fluoranthene	0.23	**0.52**	0.25	0.23	0.19	0.23	0.18	0.22	0.23	0.17	0.03	0.22	**0.29**	0.19	**0.39**
Benzo(k)fluoranthene	0.15	**0.45**	0.18	0.22	0.17	0.21	0.02	0.21	0.14	0.09	-0.07	0.11	0.22	0.10	0.24
Benzo(a)pyrene	0.18	**0.54**	0.24	0.13	0.14	0.17	0.10	0.14	0.13	0.06	0.00	0.11	**0.28**	0.17	0.34
Indeno(1,2,3-cd)pyrene	0.16	**0.47**	0.17	0.21	0.20	0.23	-0.07	0.23	0.20	0.05	-0.05	0.15	0.14	0.12	0.21
Dibenz(a,h)anthracene	0.30	**0.58**	0.27	**0.31**	0.24	**0.30**	0.18	**0.31**	0.27	0.13	0.06	0.23	**0.37**	0.29	0.22
Benzo(ghi)perylene	0.17	**0.46**	0.18	0.15	0.12	0.15	0.04	0.14	0.11	0.08	-0.10	0.07	0.19	0.05	**0.31**
Coronene	0.23	**0.45**	0.18	**0.31**	0.25	0.28	0.04	**0.31**	0.25	0.10	-0.07	0.17	0.20	0.15	0.23

Bold cells: Correlation is significant at the 0.01 level (2-taileled)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene;

9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene.

Table A17.6. Correlation of PAH with VOC personal exposure database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	0.11	0.11	0.09	0.11	0.10	0.09	0.10	0.10	0.09	0.11	0.10	0.05	0.10	0.09	0.08
Acenaphthene	0.73	0.03	-0.17	0.54	0.52	0.51	-0.24	0.51	0.53	-0.12	-0.53	0.50	-0.15	0.57	-0.19
Fluorene	-0.23	-0.23	0.03	-0.23	-0.23	-0.21	-0.24	-0.23	-0.24	-0.24	-0.24	-0.22	-0.24	-0.25	0.10
Phenanthrene	-0.05	-0.06	0.10	-0.05	-0.05	-0.05	-0.06	-0.05	-0.06	-0.06	-0.06	-0.06	-0.06	-0.07	0.05
Anthracene	**-0.34**	**-0.34**	-0.09	**-0.32**	**-0.32**	-0.23	**-0.37**	-0.30	**-0.33**	**-0.36**	**-0.36**	-0.19	**-0.36**	**-0.37**	0.14
Fluoranthene	-0.22	-0.22	-0.03	-0.19	-0.18	-0.10	-0.24	-0.17	-0.19	-0.23	-0.23	-0.04	-0.23	-0.24	0.09
Pyrene	0.03	0.04	0.01	0.06	0.08	0.12	0.02	0.10	0.11	0.03	0.02	**0.32**	0.03	0.02	-0.01
Benzo(a)anthracene	0.04	0.04	0.01	0.06	0.08	0.12	0.03	0.10	0.11	0.03	0.03	**0.33**	0.04	0.02	0.01
Chrysene	0.04	0.04	0.01	0.07	0.08	0.13	0.03	0.11	0.11	0.04	0.03	**0.33**	0.04	0.03	0.02
Benzo(b)fluoranthene	0.03	0.04	0.01	0.06	0.08	0.12	0.03	0.11	0.11	0.03	0.02	**0.33**	0.04	0.02	0.01
Benzo(k)fluoranthene	0.03	0.04	0.01	0.08	0.09	0.17	0.03	0.12	0.11	0.03	0.02	**0.33**	0.04	0.02	0.01
Benzo(a)pyrene	0.02	0.04	0.01	0.06	0.08	0.12	0.03	0.11	0.11	0.03	0.02	**0.33**	0.04	0.02	0.01
Indeno(1,2,3-cd)pyrene	0.06	0.06	0.04	0.10	0.10	0.17	0.05	0.13	0.11	0.06	0.05	0.27	0.06	0.05	0.03
Dibenz(a,h)anthracene	0.03	0.04	0.02	0.07	0.08	0.13	0.03	0.11	0.11	0.03	0.03	**0.33**	0.04	0.03	0.02
Benzo(ghi)perylene	0.04	0.04	0.03	0.09	0.10	0.19	0.03	0.14	0.12	0.04	0.03	**0.34**	0.04	0.03	0.01
Coronene	0.01	0.16	-0.01	0.03	0.04	0.05	0.02	0.03	0.03	0.02	0.02	0.04	0.02	0.03	0.05

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene;

9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene.

Table A17.7. Correlation of VOC Log transformed home microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	**0.50**													
3.	Toluene	**0.56**	**0.53**												
4.	Ethylbenzene	**0.73**	**0.66**	**0.71**											
5.	p-Xylene	**0.71**	**0.68**	**0.70**	**0.98**										
6.	m-Xylene	**0.70**	**0.65**	**0.69**	**0.98**	**0.99**									
7.	Pyridine	0.17	0.00	**0.24**	0.18	0.17	0.16								
8.	o-Xylene	**0.71**	**0.65**	**0.71**	**0.97**	**0.98**	**0.98**	0.19							
9.	1,3,5-Trimethylbenzene	**0.60**	**0.59**	**0.64**	**0.86**	**0.87**	**0.87**	0.15	**0.90**						
10.	Styrene	**0.49**	**0.44**	**0.66**	**0.67**	**0.64**	**0.64**	**0.30**	**0.67**	**0.61**					
11.	p-Isopropyltoluene	**0.27**	**0.21**	**0.42**	**0.40**	**0.42**	**0.42**	**0.31**	**0.46**	**0.55**	**0.49**				
12.	1,2,4-Trimethylbenzene	**0.55**	**0.55**	**0.63**	**0.82**	**0.83**	**0.84**	0.09	**0.86**	**0.95**	**0.58**	**0.50**			
13.	3-Ethenylpyridine	**0.22**	0.10	**0.27**	**0.29**	**0.27**	**0.29**	**0.55**	**0.32**	**0.36**	**0.33**	**0.35**	**0.28**		
14.	Naphthalene	**0.41**	**0.39**	**0.38**	**0.48**	**0.48**	**0.48**	**0.24**	**0.51**	**0.47**	**0.46**	**0.33**	**0.49**	**0.30**	
15.	1,3-Butadiene	0.04	0.13	**0.28**	**0.24**	**0.23**	**0.25**	0.19	**0.24**	**0.24**	0.20	0.16	0.19	**0.22**	-0.04

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.8. Correlation of VOC home microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	**0.53**													
3.	Toluene	**0.56**	**0.67**												
4.	Ethylbenzene	**0.41**	**0.40**	**0.42**											
5.	p-Xylene	**0.37**	**0.39**	**0.39**	**0.98**										
6.	m-Xylene	**0.33**	**0.33**	**0.35**	**0.98**	**0.99**									
7.	Pyridine	**0.14**	**0.32**	**0.22**	0.08	0.05	0.07								
8.	o-Xylene	**0.44**	**0.47**	**0.49**	**0.96**	**0.97**	**0.96**	**0.14**							
9.	1,3,5-Trimethylbenzene	**0.38**	**0.40**	**0.43**	**0.38**	**0.38**	**0.36**	0.04	**0.52**						
10.	Styrene	0.09	**0.14**	0.08	**0.22**	0.06	0.06	0.07	0.08	0.03					
11.	p-Isopropyltoluene	0.03	**0.21**	**0.25**	0.11	0.09	0.10	**0.36**	**0.20**	**0.39**	0.05				
12.	1,2,4-Trimethylbenzene	**0.44**	**0.51**	**0.52**	**0.42**	**0.42**	**0.39**	0.05	**0.56**	**0.97**	0.04	**0.37**			
13.	3-Ethenylpyridine	**0.15**	**0.30**	**0.22**	0.08	0.06	0.07	**0.94**	**0.13**	0.08	0.02	**0.26**	0.10		
14.	Naphthalene	**0.28**	**0.36**	**0.27**	**0.18**	**0.17**	**0.15**	0.08	**0.21**	**0.19**	0.06	**0.12**	**0.24**	0.09	
15.	1,3-Butadiene	0.02	**0.13**	0.08	0.01	0.00	0.01	**0.22**	0.00	0.02	0.02	0.07	0.03	**0.24**	0.05

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.9. Correlation of PAH Log transformed home microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Acenaphthalene															
2.	Acenaphthene	-0.40														
3.	Fluorene	.(a)	.(a)													
4.	Phenanthrene	**0.50**	0.10	.(a)												
5.	Anthracene	0.05	-0.27	.(a)	**0.58**											
6.	Fluoranthene	-0.04	-0.03	.(a)	**0.75**	**0.73**										
7.	Pyrene	0.09	-0.21	.(a)	**0.74**	**0.79**	**0.95**									
8.	Benzo(a)anthracene	-0.06	-0.29	.(a)	0.32	**0.43**	**0.50**	**0.64**								
9.	Chrysene	0.08	-0.27	.(a)	**0.43**	**0.53**	**0.63**	**0.76**	**0.90**							
10.	Benzo(b)fluoranthene	0.12	-0.23	.(a)	0.35	**0.45**	**0.54**	**0.67**	**0.83**	**0.92**						
11.	Benzo(k)fluoranthene	0.12	-0.25	.(a)	0.35	**0.42**	**0.51**	**0.65**	**0.85**	**0.94**	**0.98**					
12.	Benzo(a)pyrene	0.17	-0.30	.(a)	0.33	**0.40**	**0.48**	**0.64**	**0.84**	**0.88**	**0.90**	**0.90**				
13.	Indeno(1,2,3-cd)pyrene	0.18	-0.29	.(a)	0.31	0.35	**0.44**	**0.60**	**0.81**	**0.90**	**0.96**	**0.97**	**0.92**			
14.	Dibenz(a,h)anthracene	0.01	-0.20	.(a)	0.20	**0.50**	**0.47**	**0.59**	**0.77**	**0.85**	**0.94**	**0.91**	**0.93**	**0.90**		
15.	Benzo(ghi)perylene	0.16	-0.33	.(a)	0.32	0.31	**0.42**	**0.58**	**0.81**	**0.86**	**0.93**	**0.93**	**0.90**	**0.98**	**0.85**	
16.	Coronene	0.05	-0.35	.(a)	0.19	0.16	0.30	**0.46**	**0.73**	**0.76**	**0.86**	**0.86**	**0.86**	**0.93**	**0.77**	**0.96**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

APPENDIX 17: VOC AND PAH DATABASE CORRELATION

Table A17.10. Correlation of PAH home microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Acenaphthalene															
2.	Acenaphthene	-0.24														
3.	Fluorene	.(a)	.(a)													
4.	Phenanthrene	0.25	-0.33	.(a)												
5.	Anthracene	0.16	**-0.45**	.(a)	**0.73**											
6.	Fluoranthene	-0.02	-0.29	.(a)	**0.79**	**0.63**										
7.	Pyrene	-0.01	-0.33	.(a)	**0.62**	**0.60**	**0.95**									
8.	Benzo(a)anthracene	-0.11	-0.19	.(a)	0.14	0.29	**0.67**	**0.85**								
9.	Chrysene	-0.10	-0.20	.(a)	0.15	0.30	**0.68**	**0.86**	**1.00**							
10.	Benzo(b)fluoranthene	-0.10	-0.19	.(a)	0.14	0.29	**0.67**	**0.85**	**1.00**	**1.00**						
11.	Benzo(k)fluoranthene	-0.10	-0.19	.(a)	0.14	0.29	**0.67**	**0.85**	**1.00**	**1.00**	**1.00**					
12.	Benzo(a)pyrene	-0.10	-0.19	.(a)	0.13	0.29	**0.67**	**0.85**	**1.00**	**1.00**	**1.00**	**1.00**				
13.	Indeno(1,2,3-cd)pyrene	-0.10	-0.19	.(a)	0.13	0.28	**0.67**	**0.85**	**1.00**	**1.00**	**1.00**	**1.00**	**1.00**			
14.	Dibenz(a,h)anthracene	-0.14	-0.22	.(a)	0.14	0.32	**0.67**	**0.86**	**0.98**	**0.99**	**0.99**	**0.98**	**0.98**	**0.99**		
15.	Benzo(ghi)perylene	-0.11	-0.20	.(a)	0.13	0.28	**0.66**	**0.84**	**1.00**	**0.99**	**1.00**	**1.00**	**1.00**	**1.00**	**0.99**	
16.	Coronene	-0.11	-0.20	.(a)	0.13	0.27	**0.66**	**0.84**	**1.00**	**0.99**	**1.00**	**1.00**	**1.00**	**1.00**	**0.99**	**1.00**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.11. Correlation of PAH with VOC Log transformed home microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	0.06	0.26	0.36	0.35	0.38	0.34	-0.37	0.36	0.34	0.28	0.25	0.32	-0.25	0.04	0.40
Acenaphthene	-0.15	-0.26	-0.43	-0.16	-0.23	-0.18	-0.28	-0.23	-0.07	-0.23	**-0.45**	0.02	-0.08	-0.23	-0.19
Fluorene	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)
Phenanthrene	0.26	**0.39**	-0.05	0.32	0.34	0.36	-0.19	0.30	0.36	0.03	0.07	0.33	0.07	**0.40**	0.34
Anthracene	0.32	**0.53**	0.20	0.21	0.29	0.32	-0.08	0.22	0.26	0.06	0.30	0.21	0.01	0.31	0.27
Fluoranthene	0.25	**0.54**	-0.02	0.19	0.22	0.23	-0.07	0.19	0.22	-0.03	0.06	0.19	-0.02	0.33	0.19
Pyrene	0.24	**0.67**	0.12	0.26	0.30	0.30	-0.03	0.27	0.29	0.08	0.18	0.23	-0.02	**0.43**	0.28
Benzo(a)anthracene	-0.01	**0.68**	0.15	0.16	0.14	0.15	0.08	0.12	0.11	0.12	0.08	0.05	0.13	**0.58**	0.06
Chrysene	0.03	**0.74**	0.14	0.15	0.14	0.15	0.05	0.12	0.10	0.12	-0.01	0.04	-0.07	**0.46**	0.16
Benzo(b)fluoranthene	0.06	**0.69**	0.19	0.22	0.21	0.22	-0.02	0.19	0.18	0.23	0.05	0.14	-0.12	**0.45**	0.23
Benzo(k)fluoranthene	-0.03	**0.68**	0.13	0.13	0.12	0.12	-0.02	0.10	0.10	0.18	-0.02	0.05	-0.13	**0.42**	0.16
Benzo(a)pyrene	0.03	**0.67**	0.24	0.20	0.20	0.20	-0.07	0.19	0.20	0.27	0.16	0.17	-0.05	**0.44**	0.19
Indeno(1,2,3-cd)pyrene	-0.01	**0.68**	0.17	0.16	0.17	0.16	-0.07	0.15	0.14	0.22	-0.01	0.09	-0.15	**0.38**	0.17
Dibenz(a,h)anthracene	0.06	**0.64**	0.12	0.06	0.08	0.11	-0.07	0.05	0.01	0.01	-0.01	-0.02	-0.21	0.34	0.18
Benzo(ghi)perylene	0.02	**0.64**	0.17	0.19	0.20	0.19	-0.05	0.19	0.14	0.21	-0.01	0.10	-0.14	**0.39**	0.15
Coronene	-0.04	**0.53**	0.16	0.14	0.15	0.12	0.05	0.15	0.12	0.23	0.01	0.07	-0.08	**0.36**	0.14

Bold cells: Correlation is significant at the 0.01 level (2-taileled)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene.

Table A17.12. Correlation of PAH with VOC home microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	-0.07	-0.06	0.01	0.10	0.12	0.13	-0.21	0.13	0.25	-0.01	0.09	0.21	-0.08	-0.17	0.04
Acenaphthene	-0.12	-0.29	-0.29	-0.06	-0.17	-0.16	-0.17	-0.15	0.07	-0.10	-0.39	0.12	-0.13	-0.29	-0.25
Fluorene	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)
Phenanthrene	0.07	0.18	-0.08	0.17	0.19	0.21	0.07	0.17	0.29	-0.08	0.24	0.25	0.22	0.28	0.10
Anthracene	0.10	0.36	0.11	0.25	0.26	0.31	0.06	0.23	**0.47**	-0.05	0.22	**0.41**	0.11	**0.42**	0.24
Fluoranthene	-0.02	**0.61**	-0.12	0.02	0.03	0.03	0.07	0.02	0.04	-0.09	0.05	0.02	0.12	**0.40**	0.01
Pyrene	-0.05	**0.76**	-0.09	0.02	0.02	0.02	0.07	0.01	0.03	-0.07	0.01	0.00	0.08	**0.50**	0.03
Benzo(a)anthracene	-0.13	**0.85**	-0.11	-0.06	-0.08	-0.08	0.02	-0.08	-0.09	-0.02	-0.17	-0.10	-0.05	**0.46**	-0.08
Chrysene	-0.13	**0.85**	-0.09	-0.06	-0.08	-0.08	0.05	-0.08	-0.09	-0.02	-0.16	-0.10	-0.02	**0.46**	-0.06
Benzo(b)fluoranthene	-0.13	**0.85**	-0.10	-0.05	-0.08	-0.08	0.01	-0.08	-0.08	-0.01	-0.15	-0.09	-0.05	**0.46**	-0.06
Benzo(k)fluoranthene	-0.13	**0.84**	-0.11	-0.06	-0.09	-0.09	0.01	-0.08	-0.09	-0.01	-0.17	-0.10	-0.05	**0.45**	-0.08
Benzo(a)pyrene	-0.13	**0.85**	-0.11	-0.06	-0.08	-0.08	0.00	-0.08	-0.09	-0.01	-0.16	-0.10	-0.06	**0.45**	-0.07
Indeno(1,2,3-cd)pyrene	-0.13	**0.85**	-0.11	-0.06	-0.09	-0.09	0.00	-0.09	-0.09	-0.02	-0.17	-0.10	-0.06	**0.44**	-0.08
Dibenz(a,h)anthracene	-0.13	**0.85**	-0.14	-0.08	-0.10	-0.09	0.03	-0.10	-0.10	-0.05	-0.17	-0.12	-0.01	**0.53**	-0.03
Benzo(ghi)perylene	-0.13	**0.85**	-0.12	-0.06	-0.09	-0.09	0.00	-0.09	-0.10	-0.02	-0.18	-0.11	-0.06	**0.46**	-0.08
Coronene	-0.13	**0.85**	-0.12	-0.06	-0.09	-0.09	-0.01	-0.08	-0.10	-0.02	-0.17	-0.11	-0.06	**0.47**	-0.08

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene

APPENDIX 17: VOC AND PAH DATABASE CORRELATION

Table A17.13. Correlation of VOC Log transformed other home microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	0.24													
3.	Toluene	**0.71**	**0.66**												
4.	Ethylbenzene	**0.66**	**0.60**	**0.89**											
5.	p-Xylene	**0.74**	**0.59**	**0.88**	**0.96**										
6.	m-Xylene	**0.67**	**0.61**	**0.87**	**0.96**	**0.99**									
7.	Pyridine	**0.37**	**0.27**	**0.55**	**0.26**	**0.29**	**0.26**								
8.	o-Xylene	**0.68**	**0.61**	**0.85**	**0.96**	**0.97**	**0.98**	0.24							
9.	1,3,5-Trimethylbenzene	**0.34**	**0.59**	**0.62**	**0.70**	**0.69**	**0.74**	0.17	**0.75**						
10.	Styrene	**0.49**	**0.59**	**0.79**	**0.65**	**0.64**	**0.63**	**0.70**	**0.65**	**0.57**					
11.	p-Isopropyltoluene	0.23	0.00	**0.30**	0.12	0.10	0.09	**0.53**	0.12	0.21	**0.49**				
12.	1,2,4-Trimethylbenzene	**0.41**	**0.55**	**0.66**	**0.73**	**0.73**	**0.78**	0.19	**0.78**	**0.97**	**0.56**	0.24			
13.	3-Ethenylpyridine	**0.39**	**0.33**	**0.51**	**0.29**	**0.32**	**0.28**	**0.85**	**0.28**	**0.31**	**0.70**	**0.49**	**0.31**		
14.	Naphthalene	**0.29**	**0.31**	**0.43**	**0.58**	**0.53**	**0.56**	0.24	**0.63**	**0.58**	**0.48**	**0.28**	**0.54**	0.22	
15.	1,3-Butadiene	0.09	**0.39**	0.23	0.12	0.14	0.13	**0.48**	0.10	0.14	**0.44**	**0.42**	0.09	**0.50**	0.25

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.14. Correlation of VOC other home microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	0.00													
3.	Toluene	**0.87**	**0.36**												
4.	Ethylbenzene	**0.91**	**0.30**	**0.93**											
5.	p-Xylene	**0.97**	0.20	**0.93**	**0.98**										
6.	m-Xylene	**0.96**	0.24	**0.93**	**0.99**	**1.00**									
7.	Pyridine	0.17	**0.42**	**0.42**	0.19	0.21	0.23								
8.	o-Xylene	**0.87**	**0.35**	**0.90**	**0.98**	**0.96**	**0.97**	0.18							
9.	1,3,5-Trimethylbenzene	**0.39**	**0.53**	**0.55**	**0.57**	**0.51**	**0.54**	**0.44**	**0.57**						
10.	Styrene	**0.35**	**0.61**	**0.62**	**0.57**	**0.49**	**0.53**	**0.61**	**0.64**	**0.51**					
11.	p-Isopropyltoluene	**0.28**	**0.28**	**0.47**	**0.31**	**0.31**	**0.33**	**0.80**	**0.32**	**0.33**	**0.71**				
12.	1,2,4-Trimethylbenzene	**0.56**	**0.46**	**0.68**	**0.69**	**0.66**	**0.69**	**0.45**	**0.68**	**0.93**	**0.52**	**0.37**			
13.	3-Ethenylpyridine	0.17	**0.42**	**0.42**	0.20	0.22	0.23	**1.00**	0.19	**0.45**	**0.61**	**0.79**	**0.46**		
14.	Naphthalene	**0.42**	**0.33**	**0.49**	**0.60**	**0.53**	**0.57**	0.08	**0.71**	**0.54**	**0.65**	**0.29**	**0.47**	0.09	
15.	1,3-Butadiene	-0.04	0.23	0.05	-0.01	-0.02	-0.01	**0.29**	0.03	0.00	**0.34**	**0.32**	-0.04	0.27	0.13

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.15. Correlation of PAH Log transformed other home microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Acenaphthalene															
2.	Acenaphthene	0.19														
3.	Fluorene	-0.08	0.16													
4.	Phenanthrene	**0.65**	0.25	0.19												
5.	Anthracene	0.60	0.29	0.33	**0.91**											
6.	Fluoranthene	0.54	0.10	0.51	**0.80**	**0.96**										
7.	Pyrene	0.53	0.45	0.31	**0.94**	**0.90**	**0.80**									
8.	Benzo(a)anthracene	-0.39	0.10	0.39	0.15	0.06	0.22	0.23								
9.	Chrysene	-0.03	**0.64**	0.41	0.40	0.46	0.23	**0.58**	0.56							
10.	Benzo(b)fluoranthene	-0.22	0.20	**0.66**	0.24	0.34	0.40	0.36	**0.58**	**0.64**						
11.	Benzo(k)fluoranthene	-0.29	0.43	0.45	0.20	0.31	0.16	0.38	**0.60**	**0.88**	**0.83**					
12.	Benzo(a)pyrene	-0.18	0.46	**0.65**	0.36	0.41	0.41	0.55	**0.68**	**0.90**	**0.80**	**0.88**				
13.	Indeno(1,2,3-cd)pyrene	-0.21	0.26	**0.73**	0.17	0.22	0.32	0.32	**0.69**	**0.72**	**0.90**	**0.79**	**0.88**			
14.	Dibenz(a,h)anthracene	-0.04	**0.74**	**0.58**	0.28	0.34	0.22	0.52	0.52	**0.89**	**0.66**	**0.81**	**0.89**	**0.76**		
15.	Benzo(ghi)perylene	-0.32	0.32	**0.62**	0.10	0.13	0.23	0.26	**0.72**	**0.74**	**0.87**	**0.82**	**0.88**	**0.98**	**0.78**	
16.	Coronene	-0.15	0.28	0.43	0.03	0.01	0.12	0.16	**0.57**	0.55	**0.73**	**0.64**	**0.69**	**0.87**	**0.65**	**0.91**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

APPENDIX 17: VOC AND PAH DATABASE CORRELATION

Table A17.16. Correlation of PAH other home microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Acenaphthalene															
2.	Acenaphthene	0.54														
3.	Fluorene	-0.02	0.46													
4.	Phenanthrene	**0.86**	0.52	0.07												
5.	Anthracene	**0.81**	**0.68**	0.25	**0.88**											
6.	Fluoranthene	**0.89**	0.53	0.28	**0.92**	**0.94**										
7.	Pyrene	**0.71**	**0.81**	0.30	**0.87**	**0.88**	**0.82**									
8.	Benzo(a)anthracene	-0.23	0.14	0.30	0.23	0.01	0.10	0.34								
9.	Chrysene	0.21	**0.65**	0.41	0.40	0.37	0.25	**0.65**	**0.77**							
10.	Benzo(b)fluoranthene	-0.11	0.40	**0.74**	0.15	0.19	0.26	0.29	0.45	0.38						
11.	Benzo(k)fluoranthene	-0.12	0.59	0.53	0.16	0.24	0.14	0.44	**0.67**	**0.73**	**0.80**					
12.	Benzo(a)pyrene	0.10	**0.63**	**0.57**	0.36	0.34	0.31	**0.62**	**0.81**	**0.92**	**0.63**	**0.87**				
13.	Indeno(1,2,3-cd)pyrene	-0.09	0.36	**0.78**	0.17	0.11	0.23	0.33	**0.68**	**0.61**	**0.87**	**0.74**	**0.79**			
14.	Dibenz(a,h)anthracene	0.22	**0.85**	0.52	0.40	0.47	0.33	**0.74**	**0.62**	**0.92**	**0.54**	**0.82**	**0.91**	**0.62**		
15.	Benzo(ghi)perylene	-0.17	0.35	**0.65**	0.15	0.06	0.17	0.32	**0.76**	**0.65**	**0.81**	**0.79**	**0.84**	**0.96**	**0.64**	
16.	Coronene	0.02	0.28	0.44	0.22	0.03	0.20	0.31	**0.57**	0.47	**0.65**	0.50	**0.62**	**0.84**	0.48	**0.85**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.17. Correlation of PAH with VOC Log transformed other home microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	0.03	0.17	0.20	0.01	0.07	0.00	0.50	-0.03	0.02	0.54	0.46	-0.25	**0.69**	0.17	**0.67**
Acenaphthene	0.16	**0.67**	**0.62**	0.34	0.34	0.39	**0.81**	0.33	**0.75**	**0.70**	**0.81**	**0.66**	**0.69**	0.47	0.30
Fluorene	**-0.59**	0.37	-0.39	-0.45	-0.40	-0.33	-0.26	-0.41	-0.20	-0.36	-0.31	-0.02	-0.32	-0.41	-0.17
Phenanthrene	-0.36	0.55	0.03	-0.19	-0.18	-0.17	0.40	-0.23	0.12	0.39	0.34	-0.12	0.49	-0.10	**0.74**
Anthracene	-0.55	0.61	-0.10	-0.35	-0.35	-0.31	0.40	-0.38	0.07	0.29	0.30	-0.11	0.47	-0.25	**0.73**
Fluoranthene	-0.45	0.51	-0.24	-0.30	-0.26	-0.24	-0.06	-0.31	-0.06	0.01	-0.09	-0.16	-0.03	-0.24	0.40
Pyrene	-0.35	0.70	0.11	-0.14	-0.14	-0.10	0.48	-0.18	0.26	0.45	0.42	0.04	0.51	-0.04	**0.67**
Benzo(a)anthracene	-0.43	0.37	-0.18	-0.27	-0.27	-0.19	-0.12	-0.24	-0.02	-0.24	-0.11	0.09	-0.21	-0.27	0.13
Chrysene	-0.30	**0.69**	0.18	-0.06	-0.07	0.03	0.50	-0.05	0.39	0.28	0.44	0.37	0.42	-0.01	0.40
Benzo(b)fluoranthene	-0.46	0.58	-0.28	-0.29	-0.27	-0.19	-0.10	-0.25	0.08	-0.22	-0.15	0.23	-0.18	-0.31	0.18
Benzo(k)fluoranthene	-0.37	**0.59**	-0.06	-0.16	-0.16	-0.07	0.23	-0.14	0.27	0.02	0.17	0.35	0.12	-0.15	0.25
Benzo(a)pyrene	-0.50	**0.72**	-0.07	-0.27	-0.27	-0.17	0.19	-0.26	0.19	0.02	0.15	0.21	0.10	-0.23	0.23
Indeno(1,2,3-cd)pyrene	-0.47	**0.61**	-0.22	-0.31	-0.29	-0.19	-0.07	-0.27	0.04	-0.23	-0.10	0.18	-0.15	-0.32	0.12
Dibenz(a,h)anthracene	-0.35	**0.81**	0.20	-0.11	-0.12	-0.03	0.52	-0.11	0.43	0.33	0.47	0.40	0.41	-0.03	0.25
Benzo(ghi)perylene	-0.38	**0.66**	-0.11	-0.21	-0.21	-0.11	0.00	-0.17	0.16	-0.15	-0.01	0.29	-0.12	-0.23	0.11
Coronene	-0.28	**0.64**	-0.08	-0.20	-0.20	-0.14	0.08	-0.18	0.13	-0.06	0.07	0.17	-0.01	-0.23	0.17

Bold cells: Correlation is significant at the 0.01 level (2-taileled)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene.

Table A17.18. Correlation of PAH with VOC other home microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	-0.11	0.35	0.00	-0.09	-0.10	-0.10	0.38	-0.12	0.09	0.35	0.31	-0.20	0.41	-0.06	0.50
Acenaphthene	-0.11	**0.83**	0.12	-0.05	-0.06	-0.04	**0.83**	-0.06	0.54	**0.69**	**0.68**	0.34	**0.85**	0.02	0.26
Fluorene	-0.35	0.33	-0.28	-0.34	-0.33	-0.31	0.13	-0.33	-0.12	-0.11	-0.09	-0.03	0.15	-0.32	-0.26
Phenanthrene	-0.30	0.57	-0.12	-0.27	-0.27	-0.27	0.52	-0.28	0.12	0.34	0.38	-0.12	0.52	-0.23	**0.66**
Anthracene	-0.36	0.59	-0.16	-0.33	-0.34	-0.33	0.60	-0.34	0.20	0.41	0.43	-0.04	0.62	-0.28	0.52
Fluoranthene	-0.36	0.50	-0.23	-0.34	-0.34	-0.33	0.32	-0.35	0.00	0.16	0.11	-0.17	0.33	-0.31	0.42
Pyrene	-0.28	**0.79**	-0.05	-0.23	-0.24	-0.23	**0.75**	-0.25	0.34	0.54	**0.58**	0.08	**0.76**	-0.17	**0.57**
Benzo(a)anthracene	-0.33	0.46	-0.17	-0.30	-0.31	-0.29	0.32	-0.30	0.01	0.03	0.28	0.01	0.30	-0.26	0.29
Chrysene	-0.22	**0.70**	0.00	-0.18	-0.19	-0.17	**0.71**	-0.19	0.27	0.42	**0.65**	0.14	**0.72**	-0.12	0.36
Benzo(b)fluoranthene	-0.40	0.53	-0.29	-0.35	-0.36	-0.34	0.27	-0.34	0.08	0.02	0.10	0.14	0.26	-0.33	0.06
Benzo(k)fluoranthene	-0.33	**0.73**	-0.15	-0.28	-0.29	-0.26	**0.60**	-0.27	0.32	0.31	0.48	0.29	**0.60**	-0.22	0.19
Benzo(a)pyrene	-0.38	**0.74**	-0.16	-0.34	-0.35	-0.33	**0.59**	-0.34	0.17	0.26	0.46	0.08	**0.60**	-0.29	0.25
Indeno(1,2,3-cd)pyrene	-0.44	0.52	-0.33	-0.40	-0.41	-0.38	0.23	-0.40	-0.07	-0.08	0.07	-0.01	0.24	-0.38	0.10
Dibenz(a,h)anthracene	-0.29	**0.87**	-0.01	-0.23	-0.25	-0.23	**0.84**	-0.25	0.39	0.55	**0.70**	0.21	**0.84**	-0.16	0.33
Benzo(ghi)perylene	-0.41	0.58	-0.29	-0.37	-0.37	-0.35	0.28	-0.36	0.02	-0.03	0.15	0.08	0.28	-0.34	0.16
Coronene	-0.44	0.55	-0.34	-0.41	-0.41	-0.40	0.25	-0.41	-0.07	-0.01	0.14	-0.11	0.24	-0.39	0.34

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene

Table A17.19. Correlation of VOC Log transformed office microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	0.12													
3.	Toluene	0.32	**0.56**												
4.	Ethylbenzene	**0.44**	0.21	**0.72**											
5.	p-Xylene	0.43	0.01	0.43	**0.80**										
6.	m-Xylene	0.39	0.04	**0.48**	**0.86**	**0.98**									
7.	Pyridine	0.39	-0.02	0.15	0.24	0.05	0.01								
8.	o-Xylene	0.41	0.00	0.42	**0.80**	**0.96**	**0.97**	0.00							
9.	1,3,5-Trimethylbenzene	0.32	0.31	**0.77**	**0.52**	0.36	0.38	0.12	0.40						
10.	Styrene	0.32	0.37	**0.54**	**0.51**	**0.53**	**0.52**	0.23	**0.55**	0.41					
11.	p-Isopropyltoluene	0.06	0.10	0.38	0.26	0.11	0.12	0.21	0.18	**0.48**	0.29				
12.	1,2,4-Trimethylbenzene	0.16	0.17	**0.62**	**0.50**	0.29	0.34	0.14	0.32	**0.91**	0.20	**0.50**			
13.	3-Ethenylpyridine	0.13	0.23	0.33	0.29	0.07	0.12	0.12	0.14	**0.60**	0.15	0.33	**0.58**		
14.	Naphthalene	0.20	0.35	0.40	0.12	0.09	0.03	0.41	0.05	**0.53**	0.29	0.31	0.37	0.32	
15.	1,3-Butadiene	0.20	0.24	0.22	0.23	-0.10	-0.08	0.06	-0.13	0.06	-0.07	-0.03	0.00	0.09	0.21

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.20. Correlation of VOC office microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	0.09													
3.	Toluene	0.28	0.32												
4.	Ethylbenzene	0.15	0.00	**0.54**											
5.	p-Xylene	0.15	-0.14	0.32	**0.81**										
6.	m-Xylene	0.08	-0.12	0.38	**0.92**	**0.96**									
7.	Pyridine	0.19	-0.11	0.10	0.18	0.02	0.02								
8.	o-Xylene	0.16	-0.18	0.31	**0.72**	**0.94**	**0.91**	-0.04							
9.	1,3,5-Trimethylbenzene	0.23	0.13	**0.79**	0.24	0.10	0.13	0.02	0.14						
10.	Styrene	**0.47**	0.25	0.41	0.30	0.32	0.27	0.33	0.32	0.15					
11.	p-Isopropyltoluene	-0.02	-0.02	0.30	0.20	0.11	0.16	0.27	0.15	**0.47**	0.12				
12.	1,2,4-Trimethylbenzene	-0.04	-0.11	0.11	0.10	0.11	0.13	-0.01	0.20	**0.92**	-0.04	**0.66**			
13.	3-Ethenylpyridine	0.12	0.05	0.16	0.04	-0.07	-0.04	0.03	-0.05	0.41	-0.06	0.23	0.28		
14.	Naphthalene	0.23	0.24	**0.57**	0.08	0.02	-0.01	0.16	0.00	**0.52**	0.21	0.21	0.09	0.18	
15.	1,3-Butadiene	0.34	0.00	0.15	0.13	-0.05	0.00	-0.03	-0.12	-0.06	0.14	-0.25	-0.16	-0.12	0.09

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.21. Correlation of PAH Log transformed office microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Acenaphthalene															
2.	Acenaphthene	0.31														
3.	Fluorene	.(a)	.(a)													
4.	Phenanthrene	0.52	0.83	.(a)												
5.	Anthracene	0.24	0.77	.(a)	**0.83**											
6.	Fluoranthene	0.03	0.50	.(a)	**0.64**	0.60										
7.	Pyrene	0.17	0.58	.(a)	**0.65**	0.58	**0.85**									
8.	Benzo(a)anthracene	0.04	0.55	.(a)	0.21	0.00	**0.56**	**0.81**								
9.	Chrysene	0.16	0.63	.(a)	0.31	0.09	**0.69**	**0.83**	**0.95**							
10.	Benzo(b)fluoranthene	-0.07	0.43	.(a)	0.40	0.39	0.49	**0.69**	**0.84**	**0.79**						
11.	Benzo(k)fluoranthene	0.09	0.37	.(a)	0.35	0.28	**0.62**	**0.84**	**0.89**	**0.85**	**0.88**					
12.	Benzo(a)pyrene	0.17	0.56	.(a)	0.39	0.30	**0.60**	**0.80**	**0.86**	**0.88**	**0.85**	**0.94**				
13.	Indeno(1,2,3-cd)pyrene	0.15	0.51	.(a)	0.49	0.38	0.52	**0.77**	**0.77**	**0.79**	**0.86**	**0.89**	**0.92**			
14.	Dibenz(a,h)anthracene	0.19	0.43	.(a)	0.36	0.24	0.53	**0.78**	**0.80**	**0.79**	**0.75**	**0.81**	**0.71**	**0.76**		
15.	Benzo(ghi)perylene	0.08	0.70	.(a)	0.53	0.49	**0.57**	**0.76**	**0.84**	**0.84**	**0.92**	**0.81**	**0.93**	**0.79**	**0.70**	
16.	Coronene	0.26	0.69	.(a)	0.58	0.58	0.44	**0.60**	**0.58**	**0.63**	**0.82**	**0.76**	**0.84**	**0.83**	**0.69**	**0.92**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

APPENDIX 17: VOC AND PAH DATABASE CORRELATION

Table A17.22. Correlation of PAH office microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Acenaphthalene															
2. Acenaphthene	0.04														
3. Fluorene	.(a)	.(a)													
4. Phenanthrene	0.54	0.83	.(a)												
5. Anthracene	0.43	0.86	.(a)	**0.96**											
6. Fluoranthene	0.08	0.31	.(a)	0.41	0.35										
7. Pyrene	0.11	0.66	.(a)	**0.69**	0.58	**0.78**									
8. Benzo(a)anthracene	-0.19	0.28	.(a)	0.13	-0.06	**0.65**	**0.73**								
9. Chrysene	-0.11	0.46	.(a)	0.22	-0.03	**0.60**	**0.74**	**0.96**							
10. Benzo(b)fluoranthene	-0.15	0.18	.(a)	0.10	0.06	**0.63**	**0.66**	**0.81**	**0.64**						
11. Benzo(k)fluoranthene	-0.08	0.29	.(a)	0.15	0.04	**0.74**	**0.72**	**0.91**	**0.83**	**0.91**					
12. Benzo(a)pyrene	-0.12	0.35	.(a)	0.24	0.05	**0.73**	**0.78**	**0.97**	**0.92**	**0.86**	**0.96**				
13. Indeno(1,2,3-cd)pyrene	-0.05	0.28	.(a)	0.19	0.01	**0.72**	**0.74**	**0.93**	**0.90**	**0.85**	**0.96**	**0.98**			
14. Dibenz(a,h)anthracene	-0.11	0.37	.(a)	0.22	0.03	**0.68**	**0.78**	**0.94**	**0.91**	**0.75**	**0.87**	**0.93**	**0.90**		
15. Benzo(ghi)perylene	-0.07	0.67	.(a)	0.48	0.27	**0.67**	**0.86**	**0.89**	**0.88**	**0.79**	**0.91**	**0.95**	**0.95**	**0.87**	
16. Coronene	0.05	0.80	.(a)	**0.67**	0.48	0.57	**0.81**	**0.72**	**0.75**	**0.62**	**0.78**	**0.81**	**0.82**	**0.73**	**0.94**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.23. Correlation of PAH with VOC Log transformed office microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	-0.43	0.13	0.24	0.19	0.22	0.21	-0.41	0.19	-0.11	0.16	0.45	-0.03	-0.36	-0.36	0.32
Acenaphthene	0.24	0.38	0.62	0.66	0.55	0.62	-0.06	0.51	0.35	0.65	0.61	0.42	0.18	-0.24	0.09
Fluorene	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)
Phenanthrene	-0.15	0.29	0.58	0.52	0.49	0.53	-0.37	0.47	0.11	0.39	0.49	0.18	-0.22	-0.38	-0.04
Anthracene	-0.01	0.24	0.18	0.41	0.38	0.41	-0.11	0.36	0.19	0.18	-0.04	0.17	0.06	-0.20	0.13
Fluoranthene	-0.17	0.38	-0.12	0.25	0.21	0.29	**-0.57**	0.28	-0.07	0.20	0.28	-0.02	-0.27	**-0.57**	0.37
Pyrene	-0.09	**0.57**	0.25	0.46	0.41	0.50	-0.51	0.45	-0.07	0.44	0.36	0.08	-0.21	-0.46	0.52
Benzo(a)anthracene	-0.10	**0.62**	0.33	0.27	0.05	0.16	-0.44	0.11	0.14	-0.02	0.15	0.27	0.07	-0.15	0.41
Chrysene	-0.11	**0.51**	0.18	0.27	0.31	0.37	**-0.69**	0.33	0.02	0.09	0.04	0.08	-0.11	-0.34	0.33
Benzo(b)fluoranthene	-0.02	**0.75**	0.40	0.37	0.14	0.23	-0.33	0.19	0.25	0.06	0.13	0.30	0.11	0.04	0.16
Benzo(k)fluoranthene	-0.05	**0.79**	0.37	0.38	0.12	0.22	0.03	0.18	0.13	0.23	0.29	0.26	0.12	-0.13	0.41
Benzo(a)pyrene	0.03	**0.69**	0.19	0.42	0.37	0.42	**-0.58**	0.40	-0.04	0.33	0.01	-0.07	-0.17	-0.29	0.25
Indeno(1,2,3-cd)pyrene	-0.04	**0.79**	0.32	0.42	0.41	0.45	-0.08	0.44	0.09	0.43	0.11	0.08	-0.08	-0.13	0.31
Dibenz(a,h)anthracene	0.04	**0.65**	0.32	0.39	0.35	0.38	-0.28	0.32	-0.09	**0.58**	0.19	0.07	-0.15	-0.16	0.33
Benzo(ghi)perylene	0.09	**0.61**	0.30	0.35	0.42	0.45	**-0.59**	0.41	0.17	0.12	-0.03	0.16	0.02	-0.13	0.18
Coronene	0.24	**0.67**	0.42	**0.67**	**0.62**	**0.64**	-0.38	**0.60**	0.18	**0.54**	0.12	0.15	-0.06	-0.17	0.12

Bold cells: Correlation is significant at the 0.01 level (2-taileled)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene.

Table A17.24. Correlation of PAH with VOC office microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	-0.42	0.01	-0.02	0.03	0.03	0.04	-0.29	0.04	-0.11	0.04	0.37	-0.10	-0.24	-0.24	0.28
Acenaphthene	0.30	0.21	**0.82**	**0.84**	0.63	0.79	-0.10	0.53	0.33	0.55	0.39	0.38	0.34	-0.27	0.09
Fluorene	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)	.(a)
Phenanthrene	0.25	0.05	**0.92**	**0.65**	0.45	0.49	-0.23	0.27	-0.05	0.19	0.03	0.00	0.08	-0.31	0.01
Anthracene	0.23	0.05	0.16	0.36	0.18	0.21	-0.01	0.02	-0.05	-0.12	-0.18	-0.01	0.19	-0.18	-0.05
Fluoranthene	0.16	**0.62**	-0.15	0.35	0.32	0.34	-0.46	0.31	-0.15	0.21	0.15	-0.14	-0.20	-0.33	0.23
Pyrene	-0.08	0.44	0.02	**0.60**	0.47	**0.60**	-0.48	0.53	-0.19	0.34	0.04	-0.16	-0.15	-0.35	-0.04
Benzo(a)anthracene	-0.10	**0.53**	-0.06	0.38	0.18	0.38	-0.39	0.39	-0.10	0.02	0.00	-0.11	-0.11	-0.18	0.02
Chrysene	-0.10	0.36	-0.06	**0.49**	0.48	**0.58**	-0.46	**0.60**	-0.10	0.06	-0.02	-0.11	-0.15	-0.26	0.02
Benzo(b)fluoranthene	-0.03	**0.79**	0.00	0.17	0.03	0.13	-0.31	0.12	-0.07	-0.02	0.00	-0.08	-0.04	0.03	0.00
Benzo(k)fluoranthene	0.03	**0.75**	-0.04	0.34	0.12	0.28	-0.32	0.27	-0.09	0.04	0.08	-0.10	0.05	-0.11	0.15
Benzo(a)pyrene	-0.01	**0.61**	-0.07	0.42	0.41	0.46	-0.49	0.46	-0.12	0.10	0.01	-0.13	-0.17	-0.20	0.07
Indeno(1,2,3-cd)pyrene	0.03	**0.66**	-0.02	0.41	0.42	0.46	-0.37	0.47	-0.09	0.12	0.04	-0.10	-0.13	-0.12	0.16
Dibenz(a,h)anthracene	0.01	0.51	-0.10	0.42	0.40	0.45	-0.35	0.46	-0.18	0.43	0.04	-0.16	-0.22	-0.23	0.02
Benzo(ghi)perylene	0.09	**0.56**	0.07	**0.56**	**0.54**	**0.58**	-0.49	0.51	-0.07	0.06	0.00	-0.06	-0.04	-0.16	0.10
Coronene	0.25	0.46	0.13	**0.67**	**0.59**	**0.59**	-0.44	0.48	-0.09	0.19	0.00	-0.08	0.02	-0.18	0.17

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene

Table A17.25. Correlation of VOC Log transformed street microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	**0.52**													
3.	Toluene	**0.62**	**0.89**												
4.	Ethylbenzene	**0.62**	**0.90**	**0.97**											
5.	p-Xylene	**0.62**	**0.90**	**0.96**	**0.99**										
6.	m-Xylene	**0.59**	**0.86**	**0.98**	**0.98**	**0.96**									
7.	Pyridine	**0.42**	**0.52**	**0.47**	**0.55**	**0.52**	**0.44**								
8.	o-Xylene	**0.62**	**0.88**	**0.98**	**0.99**	**0.98**	**0.99**	**0.49**							
9.	1,3,5-Trimethylbenzene	**0.57**	**0.83**	**0.93**	**0.93**	**0.95**	**0.94**	**0.47**	**0.95**						
10.	Styrene	**0.53**	**0.91**	**0.86**	**0.89**	**0.87**	**0.84**	**0.64**	**0.86**	**0.84**					
11.	p-Isopropyltoluene	**0.40**	0.15	0.23	**0.27**	**0.27**	0.24	**0.32**	**0.27**	**0.33**	**0.38**				
12.	1,2,4-Trimethylbenzene	**0.54**	**0.79**	**0.91**	**0.90**	**0.89**	**0.92**	**0.47**	**0.92**	**0.93**	**0.79**	**0.32**			
13.	3-Ethenylpyridine	**0.37**	**0.43**	**0.48**	**0.52**	**0.47**	**0.46**	**0.71**	**0.49**	**0.47**	**0.60**	**0.45**	**0.54**		
14.	Naphthalene	**0.32**	**0.72**	**0.65**	**0.67**	**0.67**	**0.64**	**0.43**	**0.65**	**0.65**	**0.70**	0.21	**0.63**	**0.34**	
15.	1,3-Butadiene	0.19	**0.69**	**0.62**	**0.63**	**0.65**	**0.60**	0.25	**0.61**	**0.59**	**0.56**	-0.14	**0.59**	0.08	**0.66**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.26. Correlation of VOC street microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	**0.72**													
3.	Toluene	**0.84**	**0.91**												
4.	Ethylbenzene	**0.77**	**0.79**	**0.86**											
5.	p-Xylene	**0.85**	**0.85**	**0.94**	**0.95**										
6.	m-Xylene	**0.87**	**0.88**	**0.95**	**1.00**	**0.99**									
7.	Pyridine	**0.27**	0.06	0.08	0.13	0.12	0.12								
8.	o-Xylene	**0.87**	**0.87**	**0.97**	**0.93**	**0.99**	**0.99**	0.12							
9.	1,3,5-Trimethylbenzene	**0.83**	**0.85**	**0.96**	**0.86**	**0.97**	**0.96**	0.12	**0.96**						
10.	Styrene	**0.75**	**0.87**	**0.87**	**0.79**	**0.87**	**0.90**	0.16	**0.87**	**0.88**					
11.	p-Isopropyltoluene	0.26	0.09	0.16	0.16	0.21	0.20	**0.33**	0.20	**0.25**	**0.27**				
12.	1,2,4-Trimethylbenzene	**0.82**	**0.80**	**0.92**	**0.82**	**0.91**	**0.92**	0.14	**0.93**	**0.94**	**0.84**	**0.45**			
13.	3-Ethenylpyridine	0.17	-0.04	0.05	0.09	0.06	0.05	**0.44**	0.08	0.07	0.11	**0.53**	0.20		
14.	Naphthalene	**0.73**	**0.90**	**0.88**	**0.78**	**0.87**	**0.88**	0.08	**0.87**	**0.88**	**0.87**	0.22	**0.85**	0.00	
15.	1,3-Butadiene	0.16	**0.37**	0.26	**0.43**	**0.32**	**0.29**	-0.06	**0.29**	0.22	**0.37**	-0.11	0.18	-0.11	**0.28**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.27. Correlation of PAH Log transformed street microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Acenaphthalene															
2.	Acenaphthene	0.49														
3.	Fluorene	**0.90**	**0.95**													
4.	Phenanthrene	0.22	0.09	**0.92**												
5.	Anthracene	0.04	0.28	**0.82**	**0.48**											
6.	Fluoranthene	0.07	0.34	**0.78**	**0.64**	**0.68**										
7.	Pyrene	0.05	0.13	**0.94**	**0.62**	**0.62**	**0.90**									
8.	Benzo(a)anthracene	0.04	0.12	**0.99**	0.38	**0.71**	**0.53**	**0.73**								
9.	Chrysene	-0.08	-0.14	0.63	0.24	**0.61**	**0.63**	**0.74**	**0.81**							
10.	Benzo(b)fluoranthene	-0.17	0.25	0.51	0.24	**0.53**	**0.51**	**0.59**	**0.64**	**0.75**						
11.	Benzo(k)fluoranthene	-0.05	-0.07	**0.97**	0.34	**0.68**	**0.66**	**0.76**	**0.90**	**0.94**	**0.73**					
12.	Benzo(a)pyrene	-0.03	-0.12	0.75	0.28	**0.38**	**0.31**	**0.57**	**0.70**	**0.59**	**0.50**	**0.67**				
13.	Indeno(1,2,3-cd)pyrene	-0.12	0.03	0.04	0.24	**0.44**	0.25	0.38	**0.63**	**0.69**	**0.60**	**0.72**	**0.60**			
14.	Dibenz(a,h)anthracene	-0.38	-0.42	-0.25	-0.04	-0.10	-0.18	-0.02	0.27	0.12	0.32	0.31	0.17	0.35		
15.	Benzo(ghi)perylene	-0.09	**0.67**	**0.95**	0.19	**0.54**	**0.44**	**0.55**	**0.66**	**0.65**	**0.71**	**0.71**	**0.60**	**0.67**	0.22	
16.	Coronene	-0.14	0.42	0.52	0.17	**0.37**	**0.57**	**0.61**	**0.44**	**0.51**	**0.69**	**0.51**	**0.48**	**0.42**	-0.01	**0.62**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

APPENDIX 17: VOC AND PAH DATABASE CORRELATION

Table A17.28. Correlation of PAH street microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Acenaphthalene															
2. Acenaphthene	**0.96**														
3. Fluorene	0.59	0.71													
4. Phenanthrene	**0.73**	**0.83**	**0.94**												
5. Anthracene	**0.73**	**0.74**	0.76	**0.68**											
6. Fluoranthene	**0.68**	**0.81**	**0.98**	**0.86**	**0.77**										
7. Pyrene	**0.59**	**0.67**	**0.96**	**0.73**	**0.63**	**0.79**									
8. Benzo(a)anthracene	0.28	0.39	**0.95**	**0.41**	**0.33**	**0.44**	**0.84**								
9. Chrysene	0.05	0.00	**0.86**	0.20	**0.41**	**0.37**	**0.69**	**0.86**							
10. Benzo(b)fluoranthene	-0.04	-0.03	0.69	0.14	**0.32**	0.22	**0.54**	**0.79**	**0.89**						
11. Benzo(k)fluoranthene	0.07	0.01	**0.97**	0.28	**0.36**	**0.40**	**0.79**	**0.94**	**0.93**	**0.86**					
12. Benzo(a)pyrene	0.12	0.22	**0.77**	0.33	0.27	**0.32**	**0.74**	**0.92**	**0.79**	**0.76**	**0.87**				
13. Indeno(1,2,3-cd)pyrene	-0.05	-0.16	-0.32	0.15	0.24	0.24	**0.63**	**0.85**	**0.80**	**0.86**	**0.89**	**0.82**			
14. Dibenz(a,h)anthracene	-0.28	-0.42	-0.48	-0.06	0.13	-0.07	0.08	0.30	**0.44**	**0.67**	0.38	0.34	**0.44**		
15. Benzo(ghi)perylene	0.12	0.21	**0.84**	0.23	**0.32**	**0.36**	**0.72**	**0.90**	**0.81**	**0.85**	**0.91**	**0.85**	**0.93**	0.34	
16. Coronene	0.12	0.23	**0.92**	0.23	0.25	**0.35**	**0.71**	**0.89**	**0.75**	**0.79**	**0.87**	**0.88**	**0.90**	0.23	**0.97**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.29. Correlation of PAH with VOC Log transformed street microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	0.30	-0.04	0.00	0.01	0.00	-0.01	0.29	0.00	-0.02	0.05	0.21	0.03	0.25	-0.01	-0.27
Acenaphthene	0.01	0.19	0.19	0.16	0.18	0.22	-0.10	0.19	0.36	0.22	-0.28	0.19	0.08	0.09	0.17
Fluorene	0.75	0.88	**0.81**	**0.83**	**0.84**	**0.84**	**0.82**	**0.85**	**0.91**	**0.84**	0.53	**0.84**	**0.93**	0.60	0.29
Phenanthrene	0.03	0.25	0.29	0.24	0.21	0.20	-0.14	0.15	0.09	0.05	0.01	0.16	-0.05	0.15	0.32
Anthracene	0.11	**0.34**	**0.41**	**0.40**	**0.36**	**0.32**	-0.23	0.19	0.17	0.03	-0.06	0.18	**-0.31**	0.15	**0.54**
Fluoranthene	0.13	**0.61**	**0.63**	**0.63**	**0.61**	**0.61**	0.02	**0.55**	**0.54**	**0.34**	0.03	**0.54**	0.07	**0.49**	**0.52**
Pyrene	**0.33**	**0.71**	**0.74**	**0.74**	**0.73**	**0.70**	-0.02	**0.64**	**0.64**	**0.37**	0.12	**0.62**	-0.02	**0.53**	**0.53**
Benzo(a)anthracene	0.18	0.28	**0.52**	**0.42**	**0.32**	**0.35**	**-0.39**	0.13	0.12	-0.12	0.09	0.19	**-0.40**	0.06	**0.54**
Chrysene	0.16	**0.52**	**0.64**	**0.63**	**0.55**	**0.55**	-0.12	**0.41**	**0.38**	0.18	0.19	**0.41**	-0.17	**0.34**	**0.44**
Benzo(b)fluoranthene	0.16	**0.74**	**0.52**	**0.62**	**0.65**	**0.48**	0.20	**0.55**	**0.54**	**0.70**	0.19	**0.39**	0.25	**0.59**	**0.44**
Benzo(k)fluoranthene	0.12	**0.45**	**0.63**	**0.58**	**0.47**	**0.50**	-0.21	**0.33**	0.29	0.09	0.16	**0.35**	-0.23	0.27	**0.43**
Benzo(a)pyrene	**0.36**	**0.61**	**0.37**	**0.42**	**0.51**	0.30	0.14	**0.38**	**0.42**	**0.54**	0.26	0.30	0.05	**0.47**	0.28
Indeno(1,2,3-cd)pyrene	0.10	0.28	**0.45**	**0.37**	0.28	0.28	**-0.32**	0.14	0.05	-0.05	0.00	0.11	-0.27	0.03	0.17
Dibenz(a,h)anthracene	0.31	0.21	0.26	0.25	0.22	0.20	0.18	0.23	0.28	**0.44**	**0.65**	0.27	0.27	0.32	-0.30
Benzo(ghi)perylene	0.15	**0.43**	**0.54**	**0.51**	**0.46**	**0.43**	-0.20	**0.32**	**0.30**	0.15	0.04	**0.32**	-0.13	0.24	**0.33**
Coronene	0.01	**0.50**	**0.55**	**0.50**	**0.47**	**0.52**	-0.18	**0.41**	**0.44**	0.29	0.04	**0.47**	-0.06	**0.36**	**0.46**

Bold cells: Correlation is significant at the 0.01 level (2-taileled)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene.

Table A17.30. Correlation of PAH with VOC street microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	-0.01	0.06	0.06	0.02	0.01	0.03	-0.03	-0.02	-0.03	-0.03	-0.08	0.01	-0.04	-0.02	0.16
Acenaphthene	-0.13	0.18	0.00	-0.04	-0.03	-0.03	-0.07	-0.03	0.02	0.05	-0.25	0.01	-0.06	0.03	0.37
Fluorene	**0.88**	**0.95**	**0.94**	**0.96**	**0.95**	**0.94**	**0.86**	**0.96**	**0.98**	**0.91**	0.73	**0.98**	**0.95**	**0.86**	0.13
Phenanthrene	-0.12	0.17	0.22	0.14	0.11	0.15	-0.15	-0.04	-0.11	-0.12	-0.11	0.04	-0.14	-0.04	0.19
Anthracene	**0.34**	**0.30**	**0.49**	**0.49**	**0.45**	**0.49**	-0.13	0.14	-0.06	-0.10	-0.05	0.27	-0.16	0.05	**0.43**
Fluoranthene	0.04	**0.36**	**0.39**	**0.33**	0.29	**0.33**	-0.10	0.10	-0.03	-0.05	-0.06	0.20	-0.10	0.08	**0.38**
Pyrene	0.14	**0.65**	**0.69**	**0.58**	**0.52**	**0.58**	-0.13	0.21	-0.02	-0.05	0.03	**0.35**	-0.13	0.19	**0.34**
Benzo(a)anthracene	0.08	**0.71**	**0.72**	**0.57**	**0.51**	**0.58**	-0.14	0.21	-0.02	-0.04	0.10	**0.35**	-0.13	0.21	0.29
Chrysene	0.13	**0.65**	**0.78**	**0.70**	**0.63**	**0.70**	-0.14	0.25	-0.03	-0.06	0.08	**0.40**	-0.16	0.20	**0.32**
Benzo(b)fluoranthene	0.17	**0.79**	**0.81**	**0.76**	**0.75**	**0.76**	0.06	**0.76**	**0.77**	**0.89**	**0.65**	**0.77**	0.08	**0.84**	0.22
Benzo(k)fluoranthene	0.14	**0.72**	**0.83**	**0.72**	**0.65**	**0.72**	-0.13	0.28	0.00	-0.04	0.12	**0.45**	-0.14	0.24	0.24
Benzo(a)pyrene	0.06	**0.76**	**0.63**	**0.50**	**0.52**	**0.51**	0.11	**0.52**	**0.55**	**0.72**	**0.58**	**0.54**	-0.09	**0.69**	**0.26**
Indeno(1,2,3-cd)pyrene	0.17	**0.68**	**0.81**	**0.68**	**0.61**	**0.68**	-0.16	0.25	-0.02	-0.05	0.11	**0.41**	-0.15	0.20	0.19
Dibenz(a,h)anthracene	0.42	0.38	**0.49**	**0.50**	**0.48**	**0.46**	0.10	**0.49**	**0.52**	**0.59**	**0.56**	**0.52**	0.10	**0.52**	0.01
Benzo(ghi)perylene	0.16	**0.73**	**0.84**	**0.72**	**0.66**	**0.72**	-0.12	**0.30**	0.02	-0.02	0.16	**0.47**	-0.12	0.25	0.24
Coronene	0.32	**0.73**	**0.79**	**0.66**	**0.62**	**0.67**	-0.10	0.29	0.04	0.01	0.18	**0.45**	-0.09	0.26	0.28

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene

Table A17.31. Correlation of VOC Log transformed mobile transport microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	**0.81**													
3.	Toluene	**0.80**	**0.90**												
4.	Ethylbenzene	**0.84**	**0.85**	**0.87**											
5.	p-Xylene	**0.82**	**0.85**	**0.86**	**0.99**										
6.	m-Xylene	**0.81**	**0.84**	**0.86**	**0.99**	**0.99**									
7.	Pyridine	0.01	0.00	0.17	0.14	0.12	0.10								
8.	o-Xylene	**0.84**	**0.83**	**0.84**	**0.99**	**0.99**	**0.99**	0.10							
9.	1,3,5-Trimethylbenzene	**0.78**	**0.76**	**0.81**	**0.85**	**0.86**	**0.84**	0.21	**0.86**						
10.	Styrene	**0.60**	**0.55**	**0.66**	**0.67**	**0.68**	**0.67**	**0.48**	**0.65**	**0.69**					
11.	p-Isopropyltoluene	0.15	0.18	0.34	0.29	0.32	0.31	**0.40**	0.29	**0.52**	**0.41**				
12.	1,2,4-Trimethylbenzene	**0.77**	**0.75**	**0.78**	**0.82**	**0.84**	**0.84**	0.18	**0.84**	**0.95**	**0.65**	**0.56**			
13.	3-Ethenylpyridine	0.11	0.12	0.20	0.25	0.25	0.21	**0.68**	0.23	**0.37**	**0.42**	**0.40**	0.31		
14.	Naphthalene	**0.40**	**0.40**	**0.50**	**0.43**	**0.44**	**0.40**	**0.62**	**0.41**	**0.60**	**0.75**	**0.42**	**0.49**	**0.64**	
15.	1,3-Butadiene	**0.46**	**0.58**	**0.53**	**0.52**	**0.52**	**0.52**	0.06	**0.49**	**0.41**	0.27	0.25	0.38	0.06	0.31

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.32. Correlation of VOC mobile transport microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	**0.88**													
3.	Toluene	**0.87**	**0.94**												
4.	Ethylbenzene	**0.88**	**0.91**	**0.88**											
5.	p-Xylene	**0.87**	**0.91**	**0.87**	**1.00**										
6.	m-Xylene	**0.84**	**0.91**	**0.87**	**0.99**	**0.99**									
7.	Pyridine	0.01	-0.04	0.11	0.08	0.05	0.06								
8.	o-Xylene	**0.86**	**0.90**	**0.86**	**0.99**	**0.99**	**0.99**	0.04							
9.	1,3,5-Trimethylbenzene	**0.81**	**0.83**	**0.82**	**0.83**	**0.82**	**0.81**	0.16	**0.84**						
10.	Styrene	0.36	0.20	0.30	0.26	0.26	0.26	**0.52**	0.26	0.36					
11.	p-Isopropyltoluene	-0.10	-0.04	0.03	-0.07	-0.06	-0.05	**0.38**	-0.06	0.14	0.25				
12.	1,2,4-Trimethylbenzene	**0.80**	**0.83**	**0.80**	**0.81**	**0.80**	**0.81**	0.13	**0.82**	**0.96**	0.34	0.21			
13.	3-Ethenylpyridine	0.05	0.08	0.13	0.16	0.14	0.14	**0.65**	0.14	0.28	0.31	**0.46**	0.25		
14.	Naphthalene	0.36	0.25	0.36	0.28	0.27	0.27	**0.69**	0.27	**0.47**	**0.76**	0.35	**0.43**	**0.50**	
15.	1,3-Butadiene	0.17	0.21	0.22	0.22	0.21	0.27	0.04	0.20	0.07	-0.03	-0.10	0.09	0.05	-0.06

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.33. Correlation of PAH Log transformed mobile transport microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Acenaphthalene															
2.	Acenaphthene	0.49														
3.	Fluorene	-0.42	-0.37													
4.	Phenanthrene	0.23	0.11	-0.57												
5.	Anthracene	0.31	0.19	-0.21	**0.61**											
6.	Fluoranthene	0.27	-0.17	-0.47	0.39	**0.43**										
7.	Pyrene	0.13	-0.05	**-0.72**	**0.65**	**0.41**	**0.81**									
8.	Benzo(a)anthracene	0.15	0.01	-0.47	**0.63**	**0.71**	**0.71**	**0.73**								
9.	Chrysene	0.13	-0.09	-0.43	**0.59**	**0.65**	**0.75**	**0.76**	**0.98**							
10.	Benzo(b)fluoranthene	0.02	-0.10	**-0.68**	**0.42**	**0.52**	**0.55**	**0.71**	**0.84**	**0.85**						
11.	Benzo(k)fluoranthene	0.15	0.12	**-0.55**	0.34	**0.59**	**0.49**	**0.49**	**0.88**	**0.85**	**0.84**					
12.	Benzo(a)pyrene	0.07	-0.05	-0.63	**0.48**	0.33	**0.72**	**0.75**	**0.72**	**0.74**	**0.64**	**0.60**				
13.	Indeno(1,2,3-cd)pyrene	0.12	0.38	-0.10	0.29	**0.44**	0.01	0.30	**0.54**	**0.49**	**0.74**	**0.76**	0.29			
14.	Dibenz(a,h)anthracene	0.31	-0.28	0.14	**0.69**	**0.70**	0.07	0.13	**0.65**	**0.61**	0.39	**0.55**	0.26	0.36		
15.	Benzo(ghi)perylene	0.15	0.17	**-0.93**	**0.43**	0.37	**0.58**	**0.74**	**0.73**	**0.73**	**0.83**	**0.78**	**0.88**	**0.85**	0.45	
16.	Coronene	0.40	0.16	**-0.87**	0.31	0.15	0.36	0.38	0.42	**0.48**	**0.47**	**0.52**	**0.59**	**0.58**	0.36	**0.81**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.34. Correlation of PAH mobile transport microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Acenaphthalene															
2.	Acenaphthene	0.32														
3.	Fluorene	-0.28	-0.44													
4.	Phenanthrene	-0.03	0.31	-0.47												
5.	Anthracene	-0.05	0.36	-0.24	**0.74**											
6.	Fluoranthene	0.07	-0.19	-0.34	**0.54**	0.28										
7.	Pyrene	0.11	-0.07	-0.51	**0.53**	0.17	**0.83**									
8.	Benzo(a)anthracene	0.06	-0.16	-0.37	**0.59**	**0.40**	**0.92**	**0.73**								
9.	Chrysene	0.06	-0.15	-0.37	**0.58**	0.38	**0.94**	**0.76**	**0.96**							
10.	Benzo(b)fluoranthene	0.03	-0.08	-0.50	0.32	0.31	**0.71**	**0.65**	**0.77**	**0.84**						
11.	Benzo(k)fluoranthene	0.13	-0.04	**-0.73**	0.38	**0.41**	**0.74**	**0.54**	**0.84**	**0.89**	**0.92**					
12.	Benzo(a)pyrene	-0.07	0.03	-0.33	**0.66**	0.18	**0.62**	**0.51**	**0.49**	**0.47**	0.03	0.09				
13.	Indeno(1,2,3-cd)pyrene	0.15	**0.63**	-0.28	**0.48**	**0.68**	-0.10	-0.03	0.09	0.09	0.30	0.32	-0.15			
14.	Dibenz(a,h)anthracene	0.06	0.34	-0.17	**0.73**	**0.84**	-0.11	-0.19	0.14	0.09	0.05	0.16	0.09	0.86		
15.	Benzo(ghi)perylene	0.14	0.41	**-0.97**	**0.55**	0.22	**0.50**	**0.69**	**0.44**	**0.48**	**0.49**	**0.44**	**0.46**	**0.70**	**0.62**	
16.	Coronene	0.05	0.28	**-0.88**	0.25	0.01	0.22	0.27	0.19	0.21	0.24	0.24	0.24	**0.61**	0.39	**0.78**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.35. Correlation of PAH with VOC Log transformed mobile transport microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	0.03	0.05	0.23	0.15	0.16	0.16	0.25	0.15	0.19	0.32	-0.11	0.18	0.32	0.35	-0.24
Acenaphthene	0.12	0.31	0.37	0.34	0.33	0.32	-0.06	0.32	0.37	0.36	0.19	0.29	-0.05	0.08	0.28
Fluorene	**-0.80**	-0.45	**-0.69**	-0.59	-0.61	-0.58	-0.35	-0.58	-0.57	-0.43	0.51	-0.60	-0.54	-0.61	-0.50
Phenanthrene	0.16	0.28	0.31	0.24	0.23	0.24	0.21	0.28	**0.45**	**0.52**	0.05	**0.49**	0.13	**0.48**	0.24
Anthracene	0.20	0.24	0.35	0.27	0.29	0.27	**0.46**	0.28	**0.40**	**0.58**	0.20	0.27	0.12	**0.68**	0.24
Fluoranthene	0.20	-0.01	0.15	0.08	0.10	0.07	0.36	0.10	0.23	0.46	0.10	0.18	0.07	**0.60**	0.15
Pyrene	0.31	0.28	0.30	0.26	0.26	0.25	0.07	0.32	**0.53**	0.39	-0.01	**0.47**	-0.10	**0.47**	0.30
Benzo(a)anthracene	**0.43**	**0.40**	**0.55**	**0.49**	**0.50**	**0.47**	**0.45**	**0.52**	**0.65**	**0.72**	0.13	**0.47**	0.24	**0.80**	**0.41**
Chrysene	**0.46**	0.37	**0.51**	**0.48**	**0.49**	**0.47**	**0.46**	**0.51**	**0.65**	**0.73**	0.16	**0.51**	0.26	**0.78**	0.35
Benzo(b)fluoranthene	**0.66**	**0.62**	**0.69**	**0.68**	**0.67**	**0.65**	0.26	**0.70**	**0.77**	**0.51**	-0.08	**0.58**	0.09	**0.64**	**0.51**
Benzo(k)fluoranthene	**0.59**	**0.57**	**0.73**	**0.70**	**0.70**	**0.67**	0.36	**0.70**	**0.74**	**0.64**	-0.01	**0.47**	0.30	**0.73**	**0.51**
Benzo(a)pyrene	**0.48**	0.35	**0.45**	0.38	0.41	0.37	0.26	**0.42**	**0.51**	**0.56**	0.10	**0.50**	0.38	**0.54**	0.40
Indeno(1,2,3-cd)pyrene	**0.65**	**0.81**	**0.83**	**0.83**	**0.82**	**0.81**	-0.03	**0.85**	**0.87**	**0.40**	-0.14	**0.64**	0.15	**0.42**	**0.53**
Dibenz(a,h)anthracene	0.23	0.19	0.25	0.28	0.28	0.30	**0.58**	0.31	0.41	**0.60**	0.37	0.39	0.45	**0.53**	-0.08
Benzo(ghi)perylene	**0.64**	**0.65**	**0.71**	**0.70**	**0.70**	**0.68**	0.00	**0.77**	**0.90**	**0.46**	-0.22	**0.66**	0.14	**0.50**	**0.46**
Coronene	**0.53**	0.41	**0.58**	**0.66**	**0.67**	**0.68**	0.26	**0.71**	**0.80**	**0.53**	0.12	**0.76**	**0.59**	**0.44**	-0.02

Bold cells: Correlation is significant at the 0.01 level (2-taileled)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene.

Table A17.36. Correlation of PAH with VOC transport station microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	-0.10	0.13	0.08	0.05	0.01	0.02	-0.02	0.04	0.17	0.05	-0.07	0.07	0.01	0.07	-0.03
Acenaphthene	-0.10	**0.83**	**0.68**	**0.64**	0.42	0.45	-0.27	**0.54**	**0.69**	0.17	0.01	**0.62**	-0.11	-0.11	**0.78**
Fluorene	-0.57	-0.48	-0.57	-0.55	-0.55	-0.54	-0.42	-0.55	-0.59	-0.38	0.53	-0.61	-0.63	-0.54	-0.31
Phenanthrene	-0.11	0.27	0.22	0.18	0.10	0.14	0.34	0.20	**0.46**	**0.77**	0.06	**0.41**	0.19	**0.46**	0.05
Anthracene	-0.07	0.35	0.29	0.28	0.19	0.23	0.27	0.29	**0.48**	**0.40**	0.00	0.39	0.09	0.36	0.04
Fluoranthene	-0.02	-0.05	0.08	0.01	0.00	-0.02	**0.60**	-0.01	0.12	**0.78**	0.03	0.10	0.16	**0.72**	0.08
Pyrene	-0.07	0.08	0.10	0.05	0.00	0.00	0.28	0.05	0.31	**0.56**	-0.12	0.31	-0.07	0.50	0.14
Benzo(a)anthracene	-0.04	0.08	0.16	0.10	0.05	0.05	**0.66**	0.08	0.26	**0.71**	0.10	0.21	0.24	**0.75**	0.06
Chrysene	0.00	0.06	0.16	0.11	0.07	0.07	**0.66**	0.10	0.27	**0.78**	0.06	0.23	0.22	**0.78**	0.03
Benzo(b)fluoranthene	0.17	0.31	0.40	0.37	0.32	0.32	**0.51**	0.35	**0.45**	**0.48**	-0.09	**0.42**	0.14	**0.72**	0.18
Benzo(k)fluoranthene	0.18	0.25	0.38	0.35	0.31	0.31	**0.64**	0.33	**0.43**	**0.57**	0.00	0.37	0.26	**0.80**	0.10
Benzo(a)pyrene	-0.03	-0.08	0.00	-0.05	-0.04	-0.05	**0.39**	-0.04	-0.01	**0.78**	0.22	-0.01	0.31	0.38	0.07
Indeno(1,2,3-cd)pyrene	0.19	**0.81**	**0.71**	**0.73**	**0.61**	**0.65**	0.02	**0.73**	**0.84**	0.18	-0.06	**0.75**	0.17	0.25	0.36
Dibenz(a,h)anthracene	-0.04	**0.48**	0.34	0.36	0.25	0.31	0.14	0.39	**0.61**	0.30	0.13	**0.54**	0.23	0.15	-0.04
Benzo(ghi)perylene	0.29	**0.60**	**0.62**	**0.63**	**0.54**	**0.55**	0.19	**0.63**	**0.83**	**0.48**	-0.16	**0.75**	0.25	**0.49**	0.39
Coronene	0.26	**0.49**	**0.53**	**0.55**	**0.48**	**0.49**	0.19	**0.54**	**0.62**	0.28	0.12	**0.59**	**0.44**	0.32	0.23

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene

Table A17.37. Correlation of VOC Log transformed transport station microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	**0.70**													
3.	Toluene	**0.71**	**0.88**												
4.	Ethylbenzene	**0.79**	**0.88**	**0.95**											
5.	p-Xylene	**0.74**	**0.90**	**0.94**	**0.99**										
6.	m-Xylene	**0.72**	**0.88**	**0.94**	**0.99**	**0.99**									
7.	Pyridine	-0.11	-0.32	-0.08	-0.18	-0.18	-0.17								
8.	o-Xylene	**0.75**	**0.87**	**0.93**	**0.99**	**0.98**	**0.99**	-0.19							
9.	1,3,5-Trimethylbenzene	**0.53**	**0.84**	**0.87**	**0.89**	**0.93**	**0.92**	-0.08	**0.90**						
10.	Styrene	**0.53**	**0.80**	**0.77**	**0.80**	**0.82**	**0.83**	0.05	**0.82**	**0.84**					
11.	p-Isopropyltoluene	0.23	-0.02	0.22	0.19	0.16	0.19	**0.63**	0.20	0.20	0.28				
12.	1,2,4-Trimethylbenzene	**0.55**	**0.81**	**0.89**	**0.91**	**0.92**	**0.94**	-0.09	**0.93**	**0.96**	**0.84**	0.23			
13.	3-Ethenylpyridine	-0.05	-0.23	-0.07	-0.17	-0.16	-0.17	**0.82**	-0.19	-0.06	0.06	0.43	-0.09		
14.	Naphthalene	**0.52**	**0.67**	**0.73**	**0.72**	**0.74**	**0.74**	0.26	**0.72**	**0.82**	**0.83**	**0.54**	**0.79**	0.27	
15.	1,3-Butadiene	0.17	**0.68**	**0.52**	**0.47**	**0.50**	**0.49**	-0.24	**0.48**	**0.56**	**0.49**	-0.24	**0.51**	-0.07	**0.50**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.38. Correlation of VOC transport station microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	**0.90**													
3.	Toluene	**0.95**	**0.97**												
4.	Ethylbenzene	**0.95**	**0.91**	**0.98**											
5.	p-Xylene	**0.95**	**0.96**	**0.99**	**0.99**										
6.	m-Xylene	**0.94**	**0.96**	**0.99**	**0.99**	**1.00**									
7.	Pyridine	-0.02	-0.15	-0.10	-0.13	-0.13	-0.14								
8.	o-Xylene	**0.94**	**0.96**	**0.99**	**0.99**	**0.99**	**1.00**	-0.15							
9.	1,3,5-Trimethylbenzene	**0.92**	**0.93**	**0.96**	**0.97**	**0.98**	**0.98**	-0.10	**0.97**						
10.	Styrene	**0.88**	**0.92**	**0.92**	**0.91**	**0.93**	**0.93**	-0.02	**0.93**	**0.93**					
11.	p-Isopropyltoluene	0.11	-0.09	-0.01	-0.01	-0.02	-0.03	**0.76**	-0.04	0.04	0.06				
12.	1,2,4-Trimethylbenzene	**0.87**	**0.83**	**0.91**	**0.94**	**0.92**	**0.93**	-0.10	**0.94**	**0.94**	**0.88**	0.09			
13.	3-Ethenylpyridine	0.03	-0.13	-0.06	-0.07	-0.09	-0.10	**0.96**	-0.11	-0.06	0.00	**0.66**	-0.06		
14.	Naphthalene	**0.54**	0.41	**0.48**	**0.52**	**0.50**	**0.50**	0.38	**0.49**	**0.61**	**0.61**	**0.53**	**0.60**	0.38	
15.	1,3-Butadiene	**0.82**	**0.95**	**0.92**	**0.86**	**0.90**	**0.90**	-0.20	**0.90**	**0.89**	**0.87**	-0.16	**0.78**	-0.17	0.42

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.39. Correlation of PAH Log transformed transport station microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Acenaphthalene															
2.	Acenaphthene	**0.89**														
3.	Fluorene	-0.66	-0.50													
4.	Phenanthrene	-0.06	-0.66	-0.21												
5.	Anthracene	0.04	-0.51	-0.34	0.57											
6.	Fluoranthene	0.31	0.26	0.05	-0.14	-0.24										
7.	Pyrene	0.04	-0.55	0.26	0.41	0.10	0.53									
8.	Benzo(a)anthracene	-0.15	-0.35	-0.07	0.47	0.47	**-0.73**	0.11								
9.	Chrysene	0.50	0.53	**-0.90**	0.24	0.00	-0.20	-0.14	0.33							
10.	Benzo(b)fluoranthene	0.58	0.46	-0.33	0.31	0.10	0.12	0.45	0.28	0.28						
11.	Benzo(k)fluoranthene	0.13	0.21	-0.63	0.23	0.20	-0.54	-0.13	**0.74**	**0.79**	0.25					
12.	Benzo(a)pyrene	0.31	0.79	-0.07	-0.27	-0.41	0.37	0.30	0.00	0.40	0.35	0.41				
13.	Indeno(1,2,3-cd)pyrene	-0.06	-0.23	0.31	0.04	0.19	-0.50	0.22	**0.82**	0.11	0.29	0.57	0.28			
14.	Dibenz(a,h)anthracene	0.12	-0.25	-0.75	**0.86**	**0.93**	-0.69	0.59	**0.98**	**0.79**	**0.84**	**0.94**	-0.09	**0.83**		
15.	Benzo(ghi)perylene	0.01	0.66	-0.11	-0.22	-0.22	-0.06	0.25	**0.93**	**0.39**	**0.29**	**0.76**	**0.93**	**0.78**	0.75	
16.	Coronene	-0.21	0.63	0.03	-0.49	-0.35	-0.37	-0.06	**0.79**	0.24	-0.06	**0.67**	**0.76**	**0.78**	-0.23	0.90

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.40. Correlation of PAH transport station microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Acenaphthalene															
2.	Acenaphthene	**0.92**														
3.	Fluorene	-0.43	-0.19													
4.	Phenanthrene	-0.15	-0.64	-0.18												
5.	Anthracene	-0.04	-0.44	-0.24	**0.85**											
6.	Fluoranthene	0.06	-0.09	0.08	-0.02	-0.39										
7.	Pyrene	-0.23	-0.63	-0.07	0.38	0.01	**0.80**									
8.	Benzo(a)anthracene	-0.19	-0.41	-0.20	**0.77**	**0.93**	-0.55	-0.04								
9.	Chrysene	**0.69**	0.78	-0.60	0.04	0.12	-0.26	-0.21	0.09							
10.	Benzo(b)fluoranthene	0.41	0.20	-0.12	0.31	0.15	0.36	0.41	0.14	0.19						
11.	Benzo(k)fluoranthene	0.41	0.43	-0.56	0.33	0.54	-0.57	-0.24	**0.59**	**0.80**	0.20					
12.	Benzo(a)pyrene	0.09	0.67	0.25	-0.28	-0.37	0.14	0.26	-0.24	0.38	0.26	0.33				
13.	Indeno(1,2,3-cd)pyrene	-0.26	-0.32	-0.10	0.50	**0.71**	-0.48	0.07	**0.87**	0.00	0.15	0.56	0.11			
14.	Dibenz(a,h)anthracene	-0.26	-0.36	-0.77	**0.92**	**0.97**	**-0.70**	0.24	**1.00**	0.61	0.70	**0.96**	-0.23	**0.96**		
15.	Benzo(ghi)perylene	-0.09	0.76	-0.15	-0.25	-0.24	-0.12	0.22	**0.86**	0.24	0.16	0.54	**0.87**	**0.88**	0.80	
16.	Coronene	-0.18	0.84	-0.14	-0.46	-0.40	-0.25	0.08	**0.72**	0.09	0.02	0.41	**0.74**	0.91	0.06	**0.96**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.41. Correlation of PAH with VOC Log transformed transport station microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	0.02	-0.11	0.06	0.03	0.02	0.02	0.44	0.04	0.00	0.07	0.51	-0.05	0.40	0.38	0.17
Acenaphthene	0.23	0.06	0.04	0.17	0.16	0.17	-0.12	0.18	0.07	0.14	-0.38	0.02	-0.07	-0.05	-0.02
Fluorene	0.05	0.53	0.30	0.21	0.26	0.26	-0.59	0.24	0.33	0.05	-0.64	0.36	**-0.77**	-0.31	0.68
Phenanthrene	0.30	0.27	0.38	0.29	0.27	0.28	0.18	0.27	0.34	**0.61**	0.53	0.34	0.19	**0.68**	-0.19
Anthracene	0.07	0.02	0.06	0.01	0.04	0.03	0.43	0.02	0.12	0.28	0.47	0.01	0.26	**0.60**	-0.14
Fluoranthene	-0.46	-0.03	-0.15	-0.27	-0.23	-0.23	-0.42	-0.20	-0.24	-0.16	-0.23	-0.31	-0.38	-0.30	0.37
Pyrene	0.06	0.32	0.28	0.21	0.24	0.22	-0.38	0.25	0.24	0.21	0.09	0.19	-0.23	0.32	0.55
Benzo(a)anthracene	**0.73**	0.39	0.52	**0.64**	**0.62**	**0.61**	0.23	**0.60**	**0.62**	**0.51**	0.36	**0.62**	0.29	**0.75**	0.07
Chrysene	0.46	0.06	0.35	0.43	0.37	0.38	0.39	0.39	0.31	0.43	0.51	0.34	0.57	0.54	-0.16
Benzo(b)fluoranthene	0.38	0.27	0.37	0.39	0.38	0.37	0.07	0.38	0.31	0.34	0.42	0.28	0.04	0.59	0.36
Benzo(k)fluoranthene	**0.76**	0.33	0.54	**0.70**	**0.66**	**0.66**	0.20	**0.66**	0.58	0.55	0.29	**0.59**	0.35	**0.64**	0.00
Benzo(a)pyrene	0.49	0.52	0.52	**0.61**	**0.62**	**0.61**	-0.55	**0.64**	0.50	0.34	-0.33	0.48	-0.34	0.13	**0.63**
Indeno(1,2,3-cd)pyrene	**0.69**	0.42	0.45	**0.62**	**0.63**	**0.60**	-0.05	**0.61**	**0.59**	0.27	0.02	0.58	0.09	0.52	0.39
Dibenz(a,h)anthracene	0.69	0.35	0.55	0.63	0.60	0.58	0.55	0.58	0.59	0.55	0.78	0.61	0.45	**0.93**	0.17
Benzo(ghi)perylene	**0.69**	0.47	0.50	**0.71**	**0.70**	**0.68**	-0.48	**0.71**	0.57	0.32	-0.30	0.55	-0.22	0.31	0.50
Coronene	**0.62**	0.35	0.31	0.57	0.57	0.55	-0.50	0.57	0.44	0.12	-0.57	0.45	-0.22	-0.03	0.31

Bold cells: Correlation is significant at the 0.01 level (2-taileled)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene.

Table A17.42. Correlation of PAH with VOC transport station microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	-0.07	-0.05	-0.06	-0.07	-0.06	-0.06	**0.68**	-0.06	-0.08	-0.01	0.17	-0.11	**0.73**	0.20	-0.09
Acenaphthene	0.10	0.17	0.14	0.15	0.16	0.16	0.37	0.17	0.12	0.16	-0.43	0.08	0.49	-0.09	0.15
Fluorene	0.62	**0.78**	**0.74**	0.70	0.73	0.73	-0.58	0.73	0.71	0.65	-0.40	0.69	-0.66	-0.08	**0.81**
Phenanthrene	0.38	0.13	0.19	0.23	0.21	0.20	0.28	0.19	0.27	0.30	**0.73**	0.30	0.20	**0.79**	-0.05
Anthracene	0.33	0.05	0.10	0.14	0.13	0.12	0.57	0.10	0.20	0.21	**0.93**	0.21	0.47	0.87	-0.07
Fluoranthene	-0.19	0.08	0.01	-0.07	-0.02	-0.02	-0.35	-0.01	-0.04	0.00	-0.36	-0.11	-0.37	-0.25	0.13
Pyrene	0.04	0.08	0.08	0.09	0.09	0.09	-0.37	0.10	0.10	0.08	-0.07	0.09	-0.36	0.11	0.12
Benzo(a)anthracene	0.36	0.00	0.09	0.18	0.13	0.12	0.41	0.10	0.19	0.16	0.83	0.25	0.35	0.80	-0.08
Chrysene	0.19	-0.04	0.08	0.17	0.09	0.10	**0.60**	0.10	0.07	0.11	0.27	0.16	**0.75**	0.37	-0.13
Benzo(b)fluoranthene	0.27	0.17	0.22	0.26	0.23	0.23	0.12	0.23	0.21	0.21	0.21	0.23	0.09	0.40	0.21
Benzo(k)fluoranthene	0.41	0.05	0.18	0.31	0.23	0.22	0.59	0.22	0.24	0.23	0.55	0.33	**0.69**	**0.69**	-0.01
Benzo(a)pyrene	0.49	0.46	0.52	**0.61**	0.56	0.56	-0.38	0.58	0.51	0.45	-0.46	0.56	-0.21	0.03	0.57
Indeno(1,2,3-cd)pyrene	0.39	0.07	0.14	0.25	0.21	0.20	0.16	0.19	0.26	0.16	0.56	0.30	0.15	**0.65**	0.12
Dibenz(a,h)anthracene	0.31	-0.10	0.00	0.11	0.05	0.04	0.77	0.02	0.11	0.07	**0.92**	0.18	0.77	**0.84**	-0.15
Benzo(ghi)perylene	0.28	0.14	0.20	0.32	0.27	0.26	-0.30	0.27	0.24	0.15	-0.37	0.29	-0.15	0.15	0.33
Coronene	0.13	0.02	0.05	0.16	0.13	0.12	-0.35	0.12	0.10	-0.02	-0.48	0.14	-0.20	-0.09	0.24

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene

APPENDIX 17: VOC AND PAH DATABASE CORRELATION

Table A17.43. Correlation of VOC Log transformed other indoors microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	**0.70**													
3.	Toluene	**0.78**	**0.80**												
4.	Ethylbenzene	**0.78**	**0.73**	**0.92**											
5.	p-Xylene	**0.77**	**0.75**	**0.88**	**0.98**										
6.	m-Xylene	**0.77**	**0.78**	**0.86**	**0.97**	**0.99**									
7.	Pyridine	0.40	**0.68**	0.38	0.39	0.43	0.49								
8.	o-Xylene	**0.74**	**0.68**	**0.86**	**0.98**	**0.98**	**0.97**	0.40							
9.	1,3,5-Trimethylbenzene	**0.62**	**0.70**	**0.73**	**0.79**	**0.82**	**0.82**	0.45	**0.80**						
10.	Styrene	**0.71**	**0.90**	**0.87**	**0.83**	**0.84**	**0.85**	**0.59**	**0.78**	**0.77**					
11.	p-Isopropyltoluene	**0.61**	**0.52**	**0.60**	**0.52**	**0.51**	**0.51**	**0.61**	**0.53**	0.47	**0.54**				
12.	1,2,4-Trimethylbenzene	**0.62**	**0.68**	**0.72**	**0.78**	**0.80**	**0.81**	**0.52**	**0.80**	**0.98**	**0.73**	**0.52**			
13.	3-Ethenylpyridine	0.30	**0.63**	0.29	0.32	0.36	0.43	**0.96**	0.34	0.37	**0.53**	0.49	0.41		
14.	Naphthalene	**0.70**	**0.69**	**0.77**	**0.79**	**0.81**	**0.80**	0.34	**0.78**	**0.77**	**0.83**	**0.52**	**0.73**	0.24	
15.	1,3-Butadiene	0.24	0.13	0.24	0.24	0.26	0.26	0.22	0.27	0.14	0.20	0.17	0.16	0.31	0.09

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.44. Correlation of VOC other indoors microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	n-Hexane														
2.	Benzene	**0.55**													
3.	Toluene	0.45	0.48												
4.	Ethylbenzene	**0.62**	**0.60**	**0.60**											
5.	p-Xylene	**0.61**	**0.65**	**0.52**	**0.99**										
6.	m-Xylene	**0.53**	**0.60**	0.40	**0.96**	**0.99**									
7.	Pyridine	0.45	**0.89**	0.14	**0.58**	**0.65**	**0.67**								
8.	o-Xylene	**0.56**	**0.56**	**0.54**	**0.99**	**0.99**	**0.97**	**0.56**							
9.	1,3,5-Trimethylbenzene	0.48	**0.55**	0.31	**0.70**	**0.74**	**0.73**	**0.57**	**0.72**						
10.	Styrene	**0.72**	**0.92**	**0.55**	**0.73**	**0.75**	**0.69**	**0.85**	**0.67**	**0.62**					
11.	p-Isopropyltoluene	0.44	0.49	**0.51**	0.28	0.27	0.20	0.32	0.25	0.40	0.47				
12.	1,2,4-Trimethylbenzene	0.49	**0.54**	0.29	**0.76**	**0.79**	**0.79**	**0.59**	**0.78**	**0.99**	**0.62**	0.37			
13.	3-Ethenylpyridine	0.42	**0.84**	0.12	**0.59**	**0.67**	**0.69**	**0.98**	**0.58**	**0.58**	**0.80**	0.27	**0.60**		
14.	Naphthalene	**0.78**	**0.58**	**0.55**	**0.69**	**0.70**	**0.62**	0.44	**0.66**	**0.53**	**0.71**	0.29	**0.52**	0.40	
15.	1,3-Butadiene	0.21	0.22	0.34	0.32	0.32	0.31	0.27	0.32	0.19	0.27	-0.08	0.23	0.41	0.16

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.45. Correlation of PAH Log transformed other indoors microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Acenaphthalene															
2.	Acenaphthene	-0.01														
3.	Fluorene	0.02	0.91													
4.	Phenanthrene	**0.48**	-0.07	-0.25												
5.	Anthracene	0.10	-0.14	0.19	**0.69**											
6.	Fluoranthene	**0.40**	-0.29	-0.09	**0.96**	**0.70**										
7.	Pyrene	**0.42**	-0.24	-0.02	**0.91**	**0.65**	**0.96**									
8.	Benzo(a)anthracene	0.32	**-0.73**	-0.21	**0.49**	0.12	**0.58**	**0.61**								
9.	Chrysene	**0.33**	**-0.66**	-0.12	**0.58**	0.16	**0.66**	**0.68**	**0.94**							
10.	Benzo(b)fluoranthene	0.33	**-0.65**	-0.08	**0.44**	-0.05	**0.50**	**0.56**	**0.93**	**0.96**						
11.	Benzo(k)fluoranthene	0.36	**-0.65**	-0.04	**0.46**	-0.04	**0.51**	**0.57**	**0.94**	**0.96**	**0.99**					
12.	Benzo(a)pyrene	0.28	**-0.76**	-0.09	0.30	-0.07	**0.39**	**0.46**	**0.94**	**0.91**	**0.96**	**0.96**				
13.	Indeno(1,2,3-cd)pyrene	0.47	**-0.72**	-0.06	**0.53**	0.07	**0.55**	**0.60**	**0.87**	**0.93**	**0.92**	**0.91**	**0.92**			
14.	Dibenz(a,h)anthracene	**0.64**	**-0.55**	0.36	**0.64**	0.23	**0.58**	**0.57**	**0.80**	**0.77**	**0.75**	**0.81**	**0.76**	**0.82**		
15.	Benzo(ghi)perylene	**0.48**	**-0.64**	0.07	**0.41**	-0.03	**0.45**	**0.55**	**0.90**	**0.85**	**0.92**	**0.94**	**0.90**	**0.84**	**0.89**	
16.	Coronene	**0.38**	**-0.57**	-0.17	0.32	-0.19	0.26	**0.37**	**0.65**	**0.66**	**0.78**	**0.74**	**0.82**	**0.83**	**0.48**	**0.77**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.46. Correlation of PAH other indoors microenvironment database, Pearson coefficient

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1.	Acenaphthalene															
2.	Acenaphthene	-0.01														
3.	Fluorene	0.08	**0.98**													
4.	Phenanthrene	**0.76**	-0.15	-0.24												
5.	Anthracene	0.11	0.21	-0.08	0.38											
6.	Fluoranthene	**0.73**	-0.25	-0.23	**0.96**	**0.43**										
7.	Pyrene	**0.75**	-0.33	-0.21	**0.92**	0.33	**0.99**									
8.	Benzo(a)anthracene	**0.79**	**-0.48**	-0.26	**0.86**	0.12	**0.90**	**0.94**								
9.	Chrysene	**0.80**	**-0.47**	-0.26	**0.85**	0.11	**0.90**	**0.93**	**1.00**							
10.	Benzo(b)fluoranthene	**0.77**	**-0.50**	-0.27	**0.82**	0.05	**0.86**	**0.90**	**0.99**	**0.99**						
11.	Benzo(k)fluoranthene	**0.78**	**-0.50**	-0.27	**0.83**	0.05	**0.86**	**0.90**	**0.99**	**0.99**	**1.00**					
12.	Benzo(a)pyrene	**0.76**	**-0.55**	-0.29	**0.82**	0.06	**0.85**	**0.89**	**0.99**	**0.99**	**1.00**	**1.00**				
13.	Indeno(1,2,3-cd)pyrene	**0.76**	**-0.53**	-0.29	**0.83**	0.09	**0.86**	**0.90**	**0.99**	**0.99**	**0.99**	**0.99**	**1.00**			
14.	Dibenz(a,h)anthracene	**0.85**	-0.44	-0.19	**0.93**	0.19	**0.89**	**0.90**	**0.98**	**0.97**	**0.97**	**0.98**	**0.98**	**0.98**		
15.	Benzo(ghi)perylene	**0.80**	**-0.52**	-0.25	**0.79**	0.05	**0.82**	**0.87**	**0.98**	**0.98**	**0.99**	**0.99**	**0.99**	**0.99**	**0.98**	
16.	Coronene	**0.57**	**-0.57**	-0.28	**0.78**	-0.07	**0.64**	**0.69**	**0.83**	**0.83**	**0.87**	**0.87**	**0.89**	**0.89**	**0.84**	**0.90**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

Table A17.47. Correlation of PAH with VOC Log transformed other indoors microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	**0.42**	0.25	**0.44**	**0.47**	**0.50**	**0.51**	0.19	**0.46**	**0.38**	**0.43**	0.11	0.33	0.13	**0.49**	**0.73**
Acenaphthene	0.24	**-0.51**	**-0.54**	-0.45	-0.36	-0.46	**-0.64**	-0.33	-0.30	**-0.66**	0.06	-0.35	**-0.64**	-0.21	-0.18
Fluorene	**0.55**	0.27	0.29	0.24	0.27	0.23	**0.51**	0.42	0.37	0.14	**0.87**	0.41	**0.48**	0.36	-0.17
Phenanthrene	0.14	0.34	**0.47**	**0.55**	**0.52**	**0.52**	**0.36**	**0.51**	**0.57**	**0.53**	-0.15	**0.62**	0.26	0.56	**0.46**
Anthracene	-0.27	-0.06	0.03	0.01	-0.07	-0.04	0.27	0.00	-0.14	0.13	-0.03	-0.04	0.27	0.15	0.02
Fluoranthene	0.22	**0.43**	**0.52**	**0.54**	**0.47**	**0.50**	**0.44**	**0.46**	**0.36**	**0.59**	-0.05	**0.41**	**0.40**	**0.50**	**0.45**
Pyrene	0.33	**0.51**	**0.62**	**0.61**	**0.54**	**0.57**	**0.50**	**0.51**	**0.46**	**0.66**	0.07	**0.50**	**0.48**	**0.58**	**0.52**
Benzo(a)anthracene	**0.35**	**0.80**	**0.74**	**0.62**	**0.56**	**0.61**	**0.69**	**0.49**	**0.60**	**0.86**	0.02	**0.61**	**0.70**	**0.45**	**0.55**
Chrysene	**0.39**	**0.87**	**0.77**	**0.70**	**0.64**	**0.69**	**0.71**	**0.58**	**0.65**	**0.89**	0.05	**0.65**	**0.68**	**0.62**	**0.43**
Benzo(b)fluoranthene	**0.40**	**0.89**	**0.75**	**0.65**	**0.60**	**0.66**	**0.69**	**0.53**	**0.68**	**0.86**	0.11	**0.66**	**0.67**	**0.56**	**0.44**
Benzo(k)fluoranthene	**0.41**	**0.90**	**0.78**	**0.68**	**0.63**	**0.68**	**0.71**	**0.57**	**0.69**	**0.87**	0.13	**0.68**	**0.69**	**0.56**	**0.47**
Benzo(a)pyrene	**0.36**	**0.87**	**0.75**	**0.60**	**0.56**	**0.61**	**0.73**	**0.48**	**0.67**	**0.87**	0.16	**0.66**	**0.74**	**0.52**	**0.51**
Indeno(1,2,3-cd)pyrene	**0.37**	**0.84**	**0.80**	**0.73**	**0.71**	**0.76**	**0.67**	**0.63**	**0.76**	**0.92**	0.16	**0.73**	**0.64**	**0.76**	**0.58**
Dibenz(a,h)anthracene	**0.37**	**0.78**	**0.82**	**0.78**	**0.78**	**0.80**	**0.76**	**0.78**	**0.77**	**0.87**	**0.38**	**0.76**	**0.72**	**0.80**	**0.59**
Benzo(ghi)perylene	0.33	**0.81**	**0.77**	**0.65**	**0.61**	**0.66**	**0.68**	**0.55**	**0.69**	**0.82**	0.26	**0.68**	**0.67**	**0.50**	**0.53**
Coronene	0.20	**0.63**	**0.58**	**0.51**	**0.52**	**0.56**	**0.41**	**0.39**	**0.69**	**0.67**	0.21	**0.62**	**0.39**	**0.70**	**0.46**

Bold cells: Correlation is significant at the 0.01 level (2-taileled)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene.

Table A17.48. Correlation of PAH with VOC other indoors microenvironment database, Pearson coefficient

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Acenaphthalene	**0.68**	**0.74**	**0.81**	**0.83**	**0.83**	**0.82**	**0.77**	**0.85**	**0.47**	**0.78**	-0.07	**0.53**	**0.73**	**0.72**	**0.38**
Acenaphthene	0.25	**-0.47**	**-0.47**	-0.42	-0.41	-0.43	-0.50	-0.38	**-0.47**	**-0.52**	0.06	**-0.49**	**-0.53**	-0.17	-0.08
Fluorene	0.23	-0.25	-0.14	-0.10	-0.11	-0.11	-0.27	-0.07	-0.12	-0.28	**0.62**	-0.13	-0.33	-0.09	-0.30
Phenanthrene	-0.01	**0.72**	**0.76**	**0.78**	**0.78**	**0.78**	**0.79**	**0.78**	**0.81**	**0.80**	-0.14	**0.79**	**0.74**	**0.86**	0.33
Anthracene	-0.29	-0.06	-0.04	-0.03	-0.05	-0.04	0.05	-0.05	-0.25	0.05	**-0.43**	-0.23	0.09	0.17	0.27
Fluoranthene	0.10	**0.77**	**0.78**	**0.77**	**0.76**	**0.77**	**0.85**	**0.75**	**0.49**	**0.84**	-0.13	**0.53**	**0.83**	**0.75**	**0.42**
Pyrene	0.11	**0.83**	**0.84**	**0.82**	**0.81**	**0.82**	**0.90**	**0.80**	**0.54**	**0.89**	-0.06	**0.59**	**0.88**	**0.75**	**0.44**
Benzo(a)anthracene	0.02	**0.94**	**0.94**	**0.92**	**0.91**	**0.92**	**0.98**	**0.90**	**0.68**	**0.97**	-0.03	**0.73**	**0.94**	**0.81**	**0.34**
Chrysene	0.02	**0.94**	**0.94**	**0.93**	**0.92**	**0.93**	**0.98**	**0.90**	**0.68**	**0.97**	-0.04	**0.72**	**0.94**	**0.81**	**0.33**
Benzo(b)fluoranthene	0.03	**0.96**	**0.94**	**0.92**	**0.92**	**0.93**	**0.98**	**0.90**	**0.74**	**0.98**	0.00	**0.78**	**0.95**	**0.81**	**0.31**
Benzo(k)fluoranthene	0.03	**0.96**	**0.94**	**0.92**	**0.92**	**0.92**	**0.99**	**0.90**	**0.74**	**0.98**	0.00	**0.78**	**0.95**	**0.80**	**0.32**
Benzo(a)pyrene	0.00	**0.96**	**0.94**	**0.91**	**0.91**	**0.92**	**0.98**	**0.89**	**0.75**	**0.98**	0.02	**0.79**	**0.95**	**0.81**	**0.31**
Indeno(1,2,3-cd)pyrene	0.01	**0.96**	**0.94**	**0.91**	**0.91**	**0.92**	**0.98**	**0.89**	**0.75**	**0.98**	0.01	**0.79**	**0.95**	**0.83**	**0.34**
Dibenz(a,h)anthracene	-0.04	**0.93**	**0.91**	**0.89**	**0.90**	**0.90**	**0.97**	**0.89**	**0.71**	**0.97**	0.02	**0.75**	**0.94**	**0.93**	**0.30**
Benzo(ghi)perylene	-0.03	**0.95**	**0.93**	**0.90**	**0.90**	**0.91**	**0.97**	**0.88**	**0.75**	**0.97**	0.05	**0.78**	**0.94**	**0.79**	**0.27**
Coronene	-0.12	**0.86**	**0.80**	**0.76**	**0.78**	**0.78**	**0.84**	**0.75**	**0.86**	**0.85**	0.27	**0.86**	**0.81**	**0.86**	**0.19**

Bold cells: Correlation is significant at the 0.01 level (2-tailed)

1, n-Hexane; 2, Benzene; 3, Toluene; 4, Ethylbenzene; 5, p-Xylene; 6, m-Xylene; 7, Pyridine; 8, o-Xylene; 9, 1,3,5-Trimethylbenzene; 10, Styrene; 11, p-Isopropyltoluene; 12, 1,2,4-Trimethylbenzene; 13, 3-Ethenylpyridine; 14, Naphthalene; 15, 1,3-Butadiene