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 20. Model Scatter Plots

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

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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.

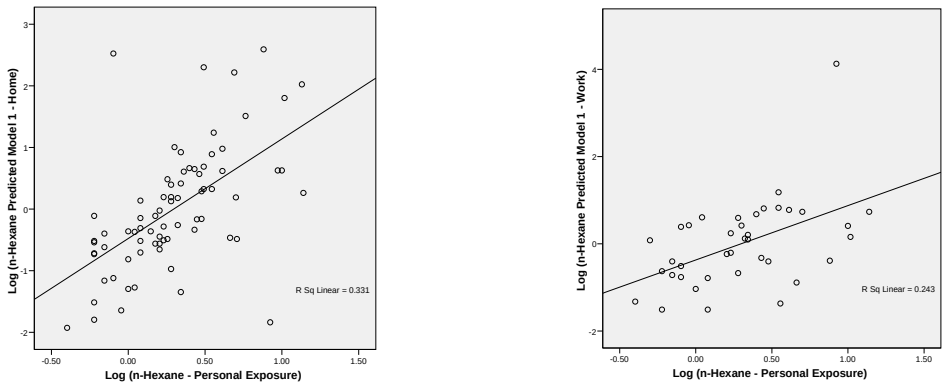

Figure A20.1. n-Hexane concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

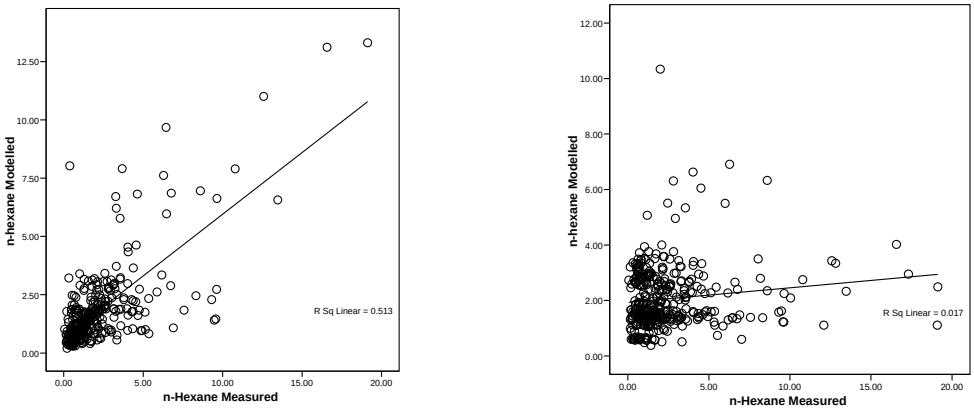

Figure A20.2. n-Hexane concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

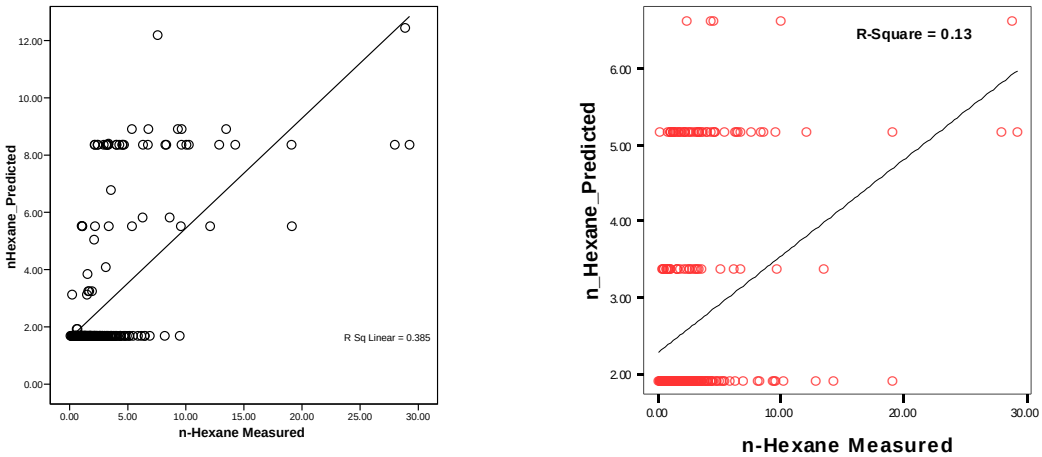

Figure A20.3. n-Hexane concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

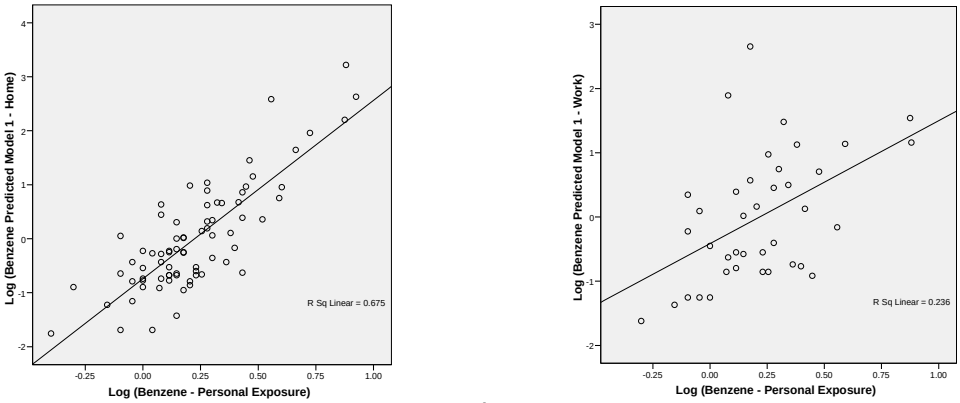

Figure A20.4. Benzene concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

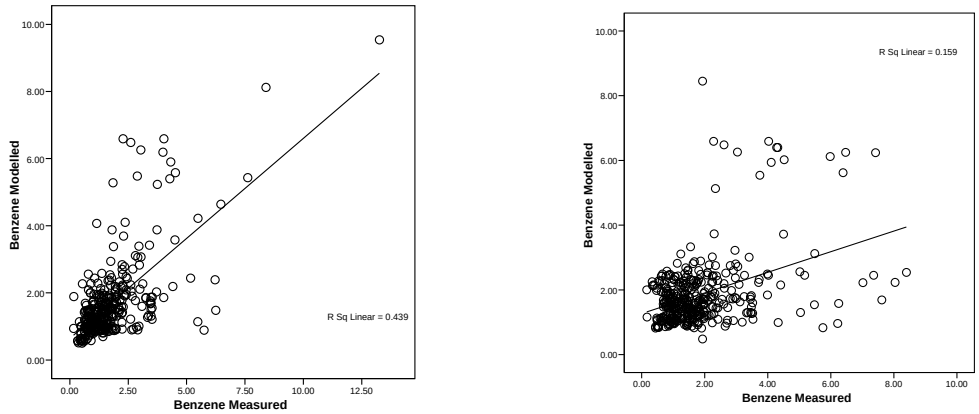

Figure A20.5. Benzene concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

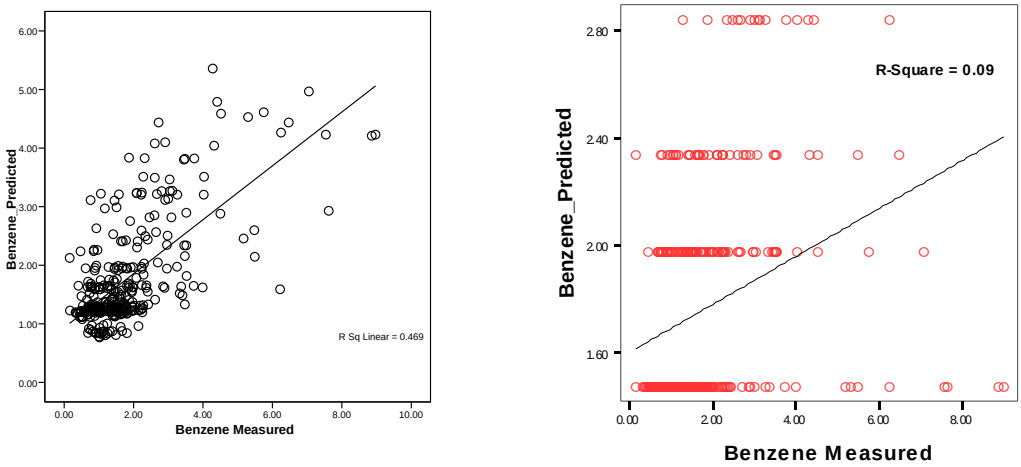

Figure A20.6. Benzene concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

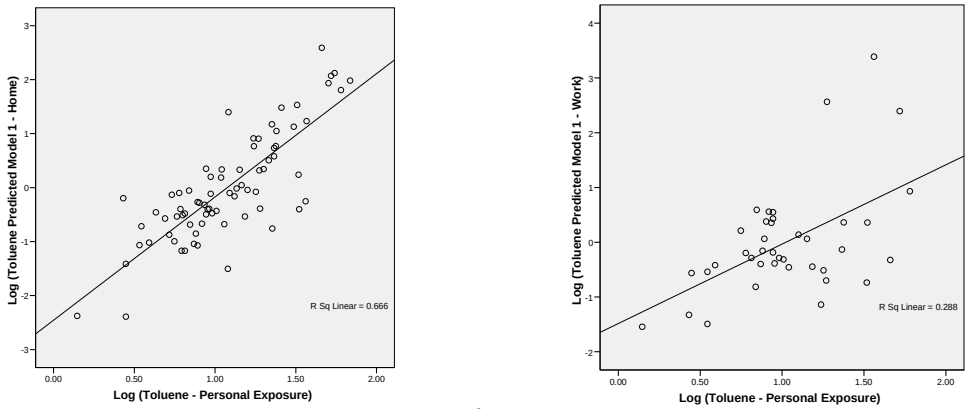

Figure A20.7. Toluene concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

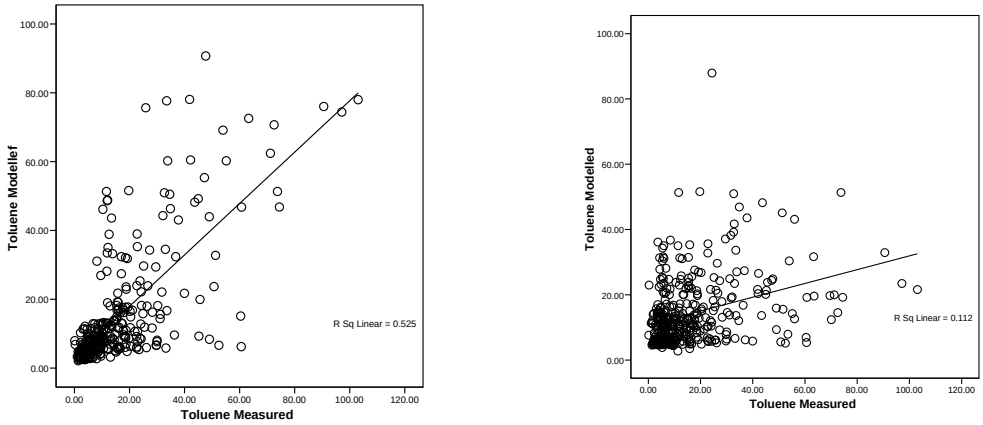

Figure A20.8. Toluene concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

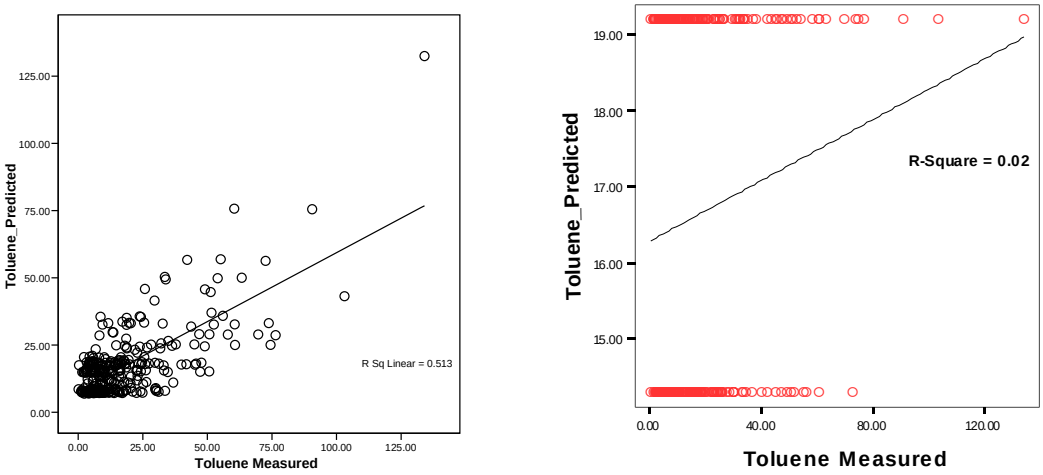

Figure A20.9. Toluene concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

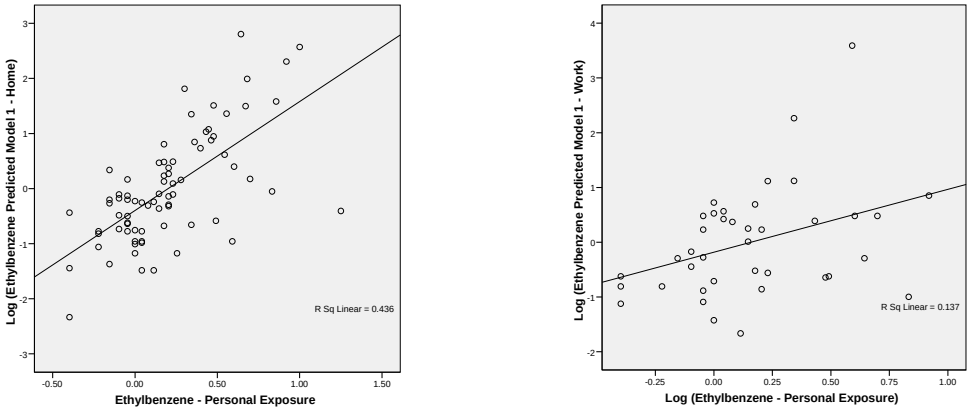

Figure A20.10.Ethylbenzene concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

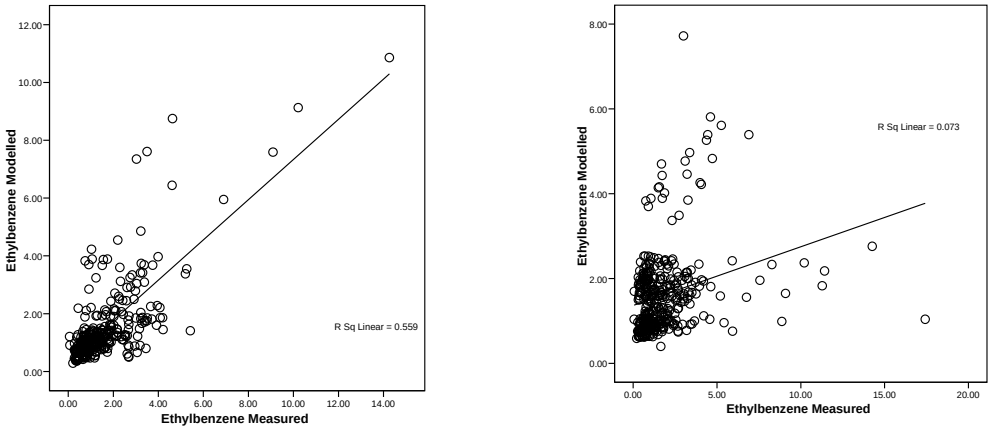

Figure A20.11.Ethylbenzene concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

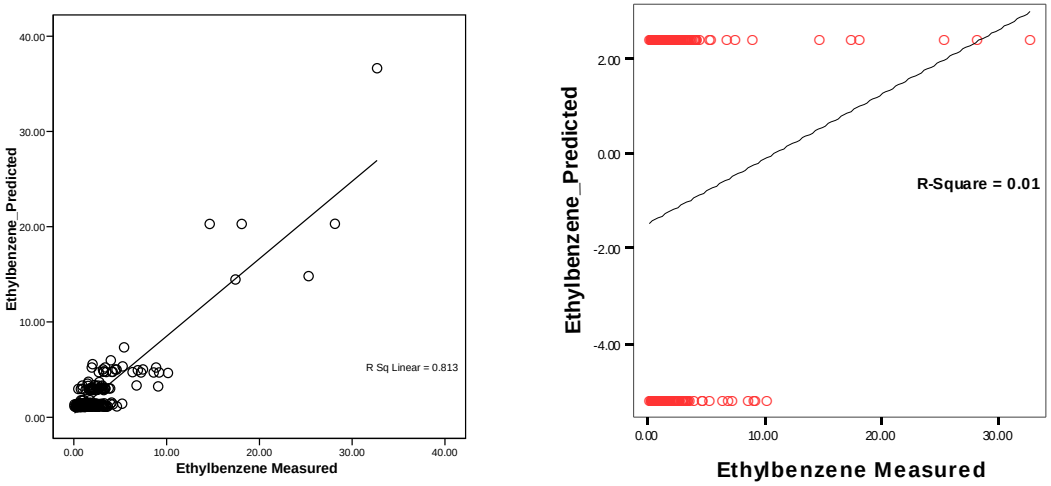

Figure A20.12.Ethylbenzene concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

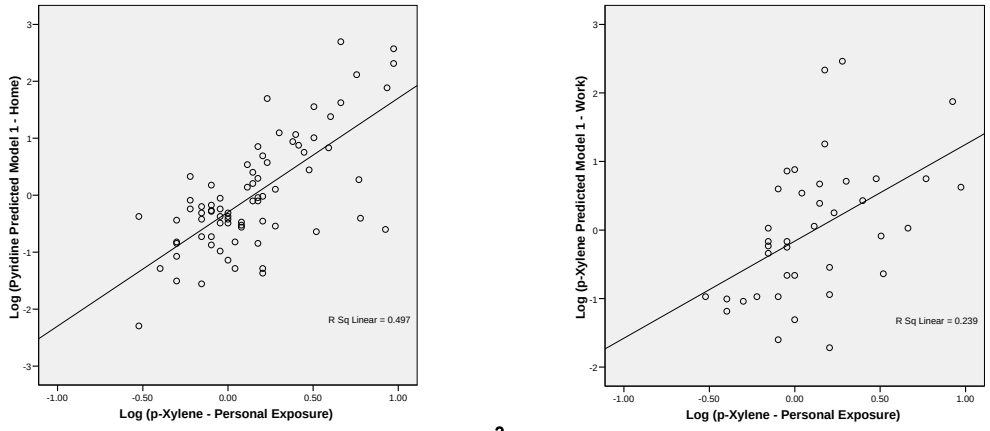

Figure A20.13.p-Xylene concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

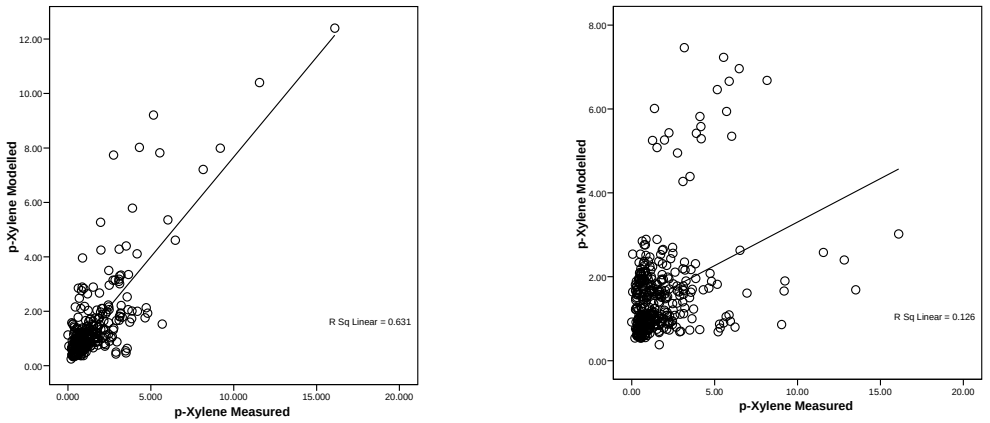

Figure A20.14.p-Xylene concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

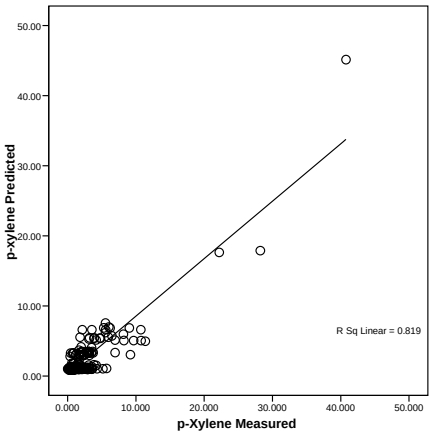

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Figure A20.15.p-Xylene concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

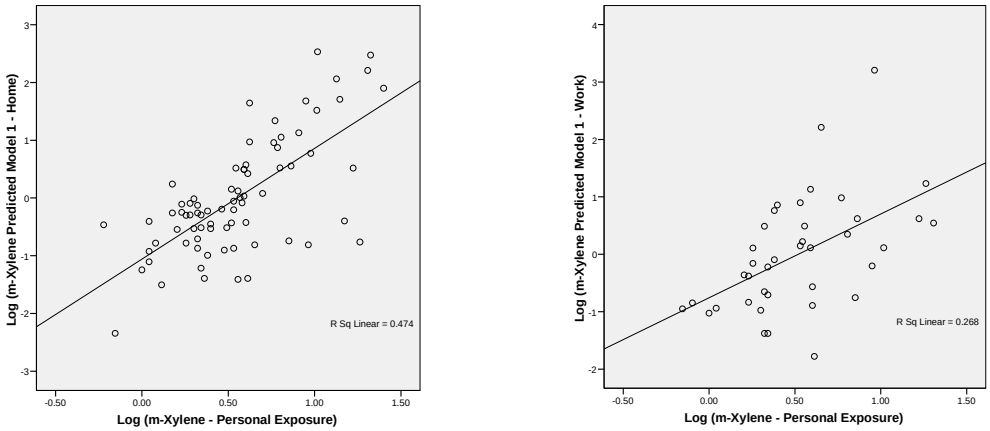

Figure A20.16.m-Xylene concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

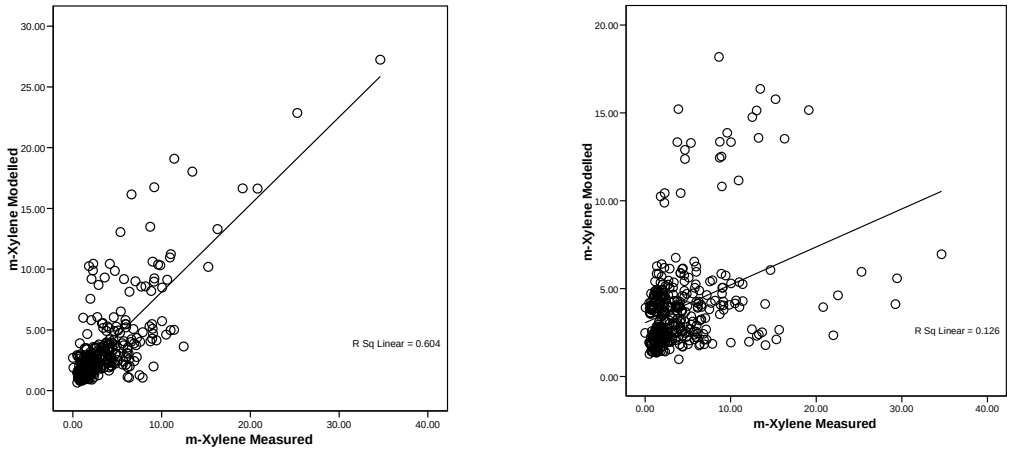

Figure A20.17.m-Xylene concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

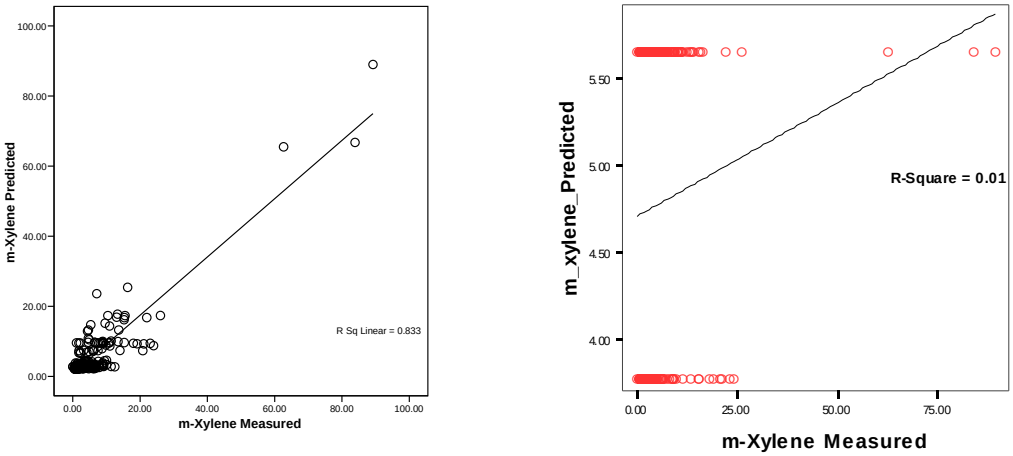

Figure A20.18.m-Xylene concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

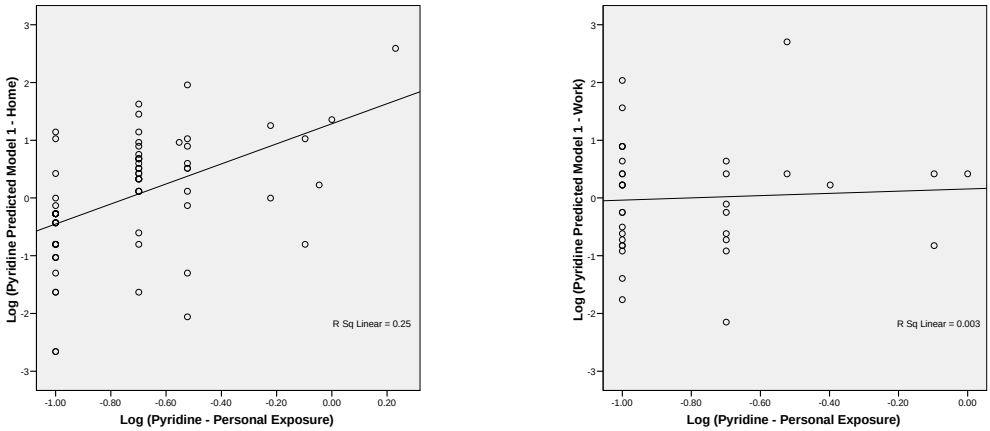

Figure A20.19.Pyridine concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

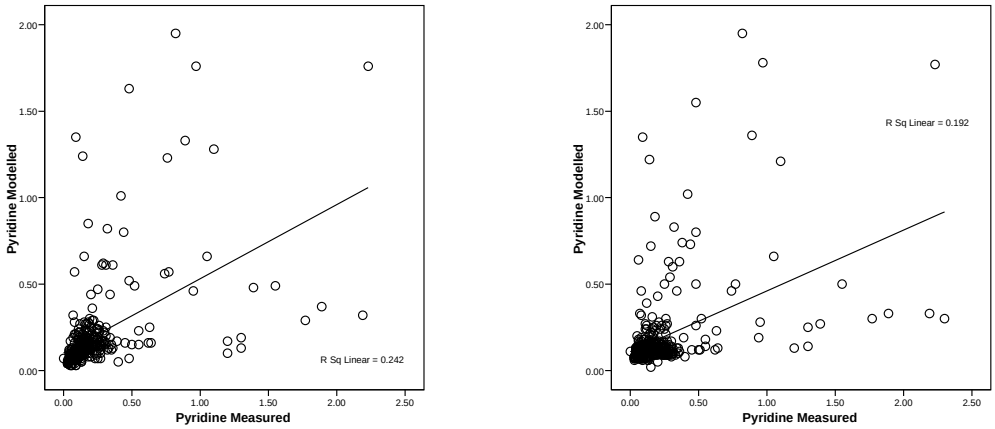

Figure A20.20.Pyridine concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

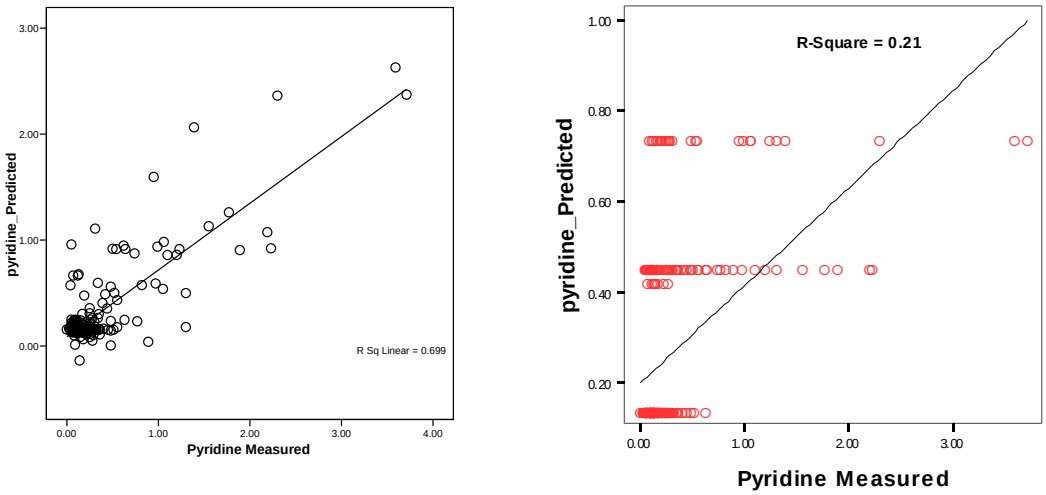

Figure A20.21.Pyridine concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

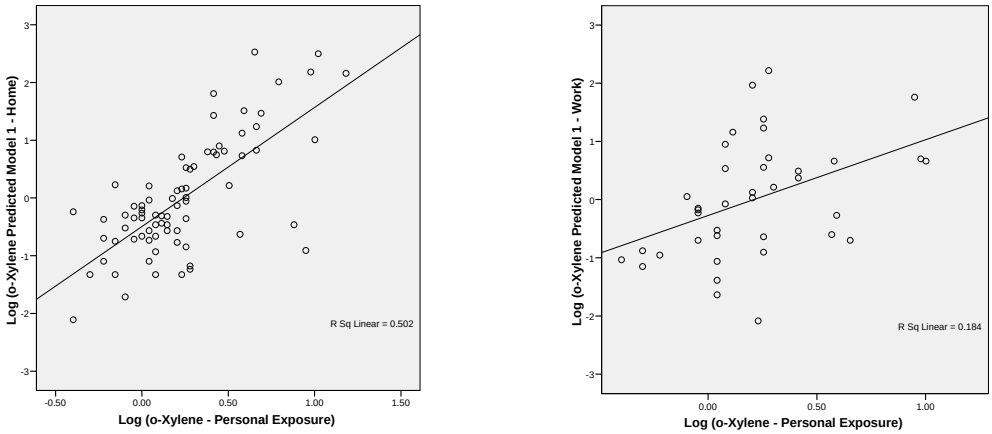

Figure A20.22.o-Xylene concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

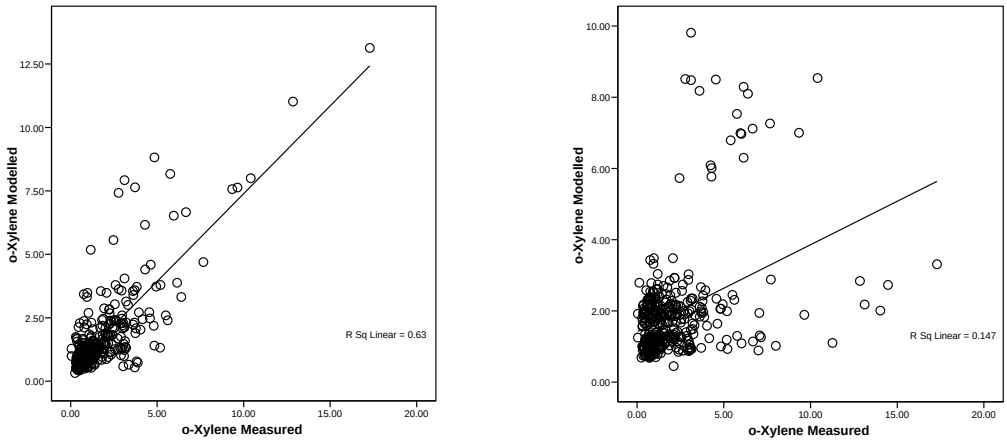

Figure A20.23.o-Xylene concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

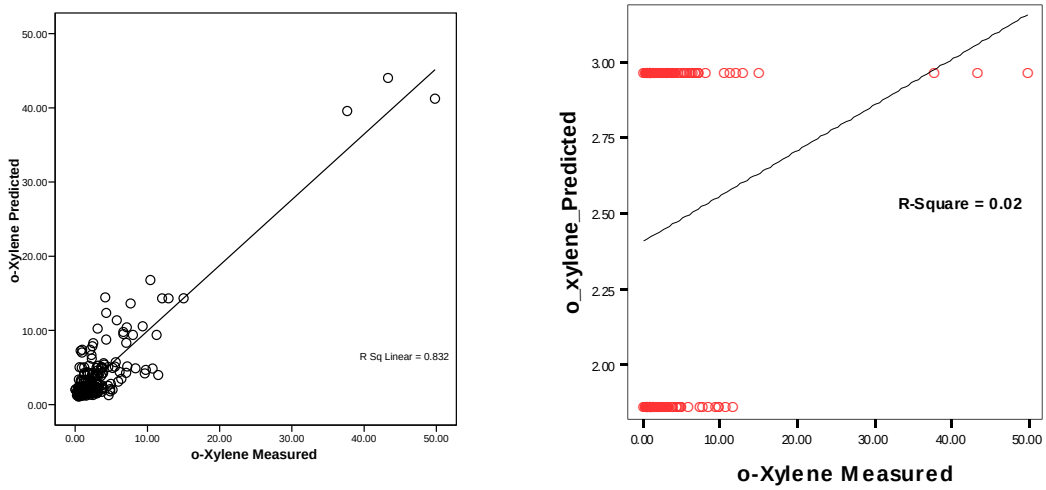

Figure A20.24.o-Xylene concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

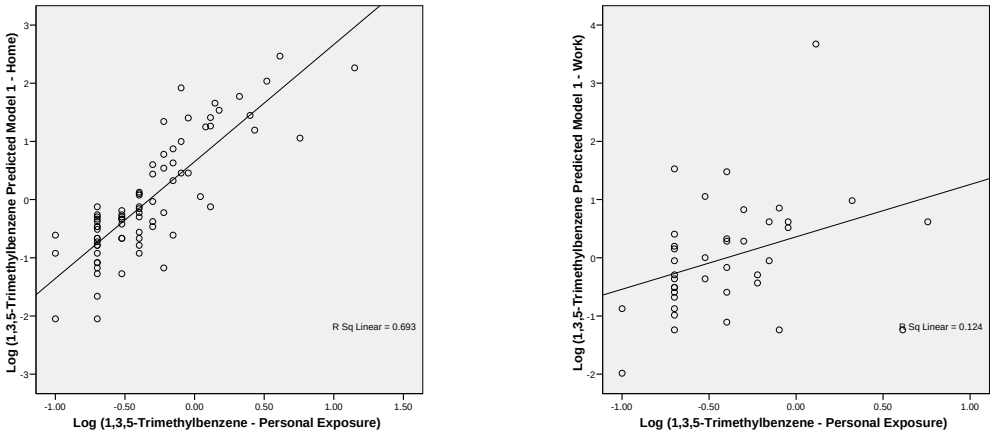

Figure A20.25.1.3.5-Trimethylbenzene concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

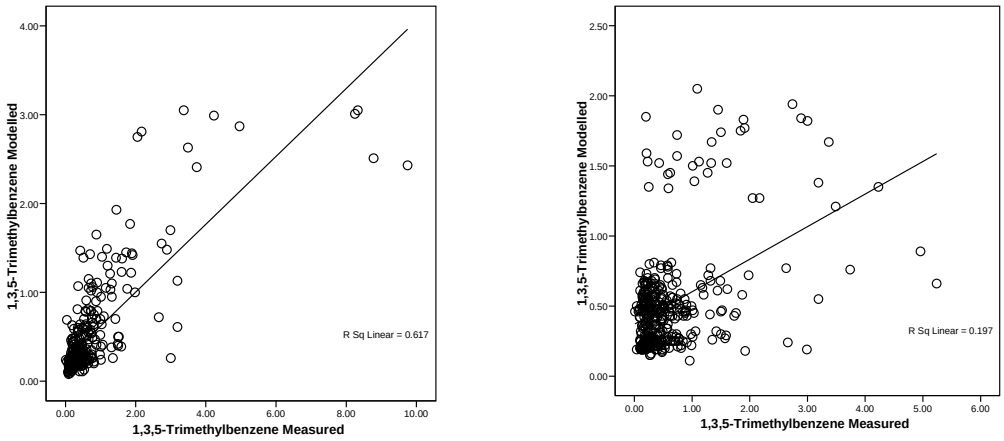

Figure A20.26.1.3.5-Trimethylbenzene concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

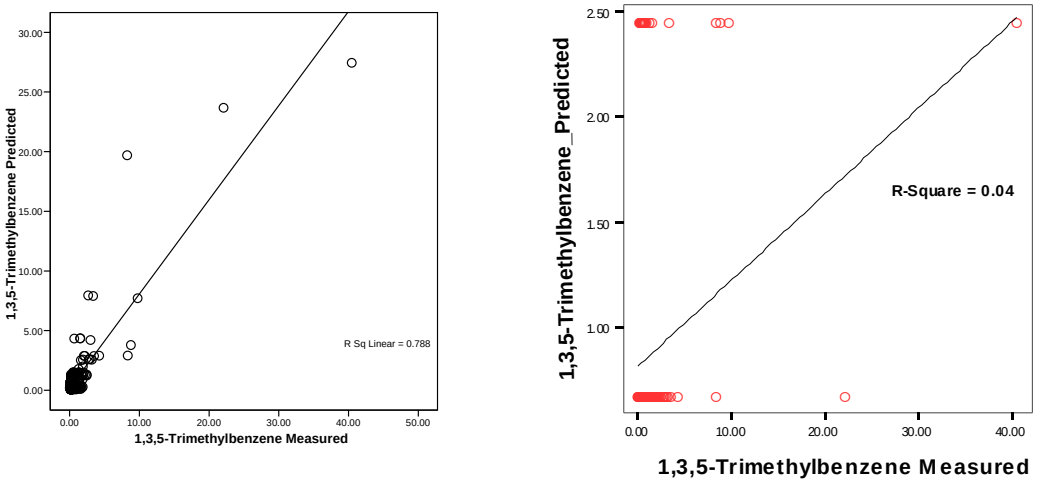

Figure A20.27.1.3.5-Trimethylbenzene concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

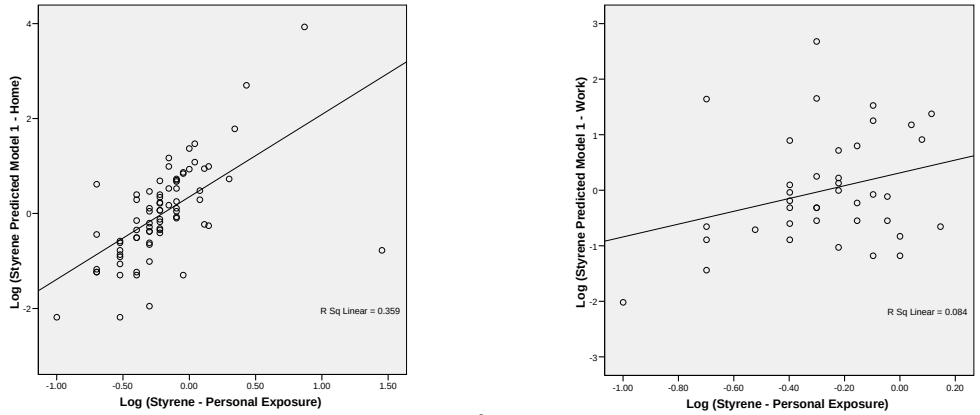

Figure A20.28.Styrene concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

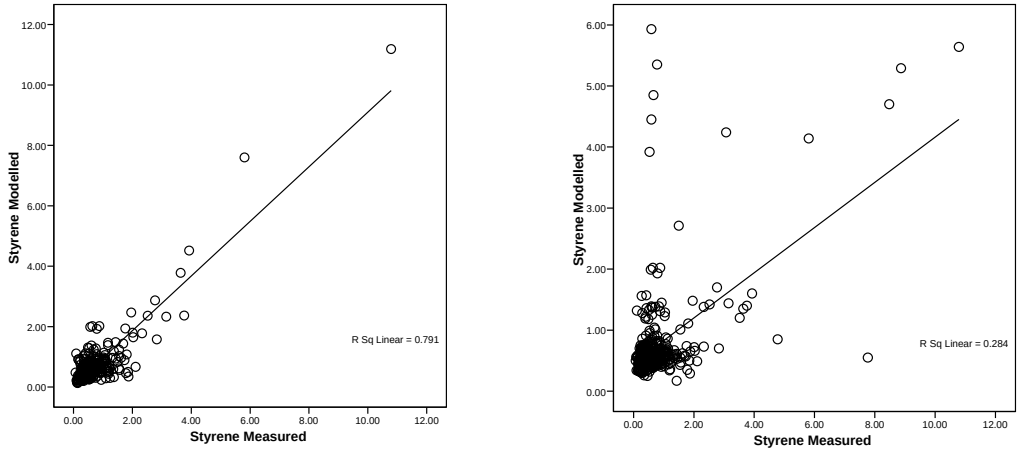

Figure A20.29.Styrene concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

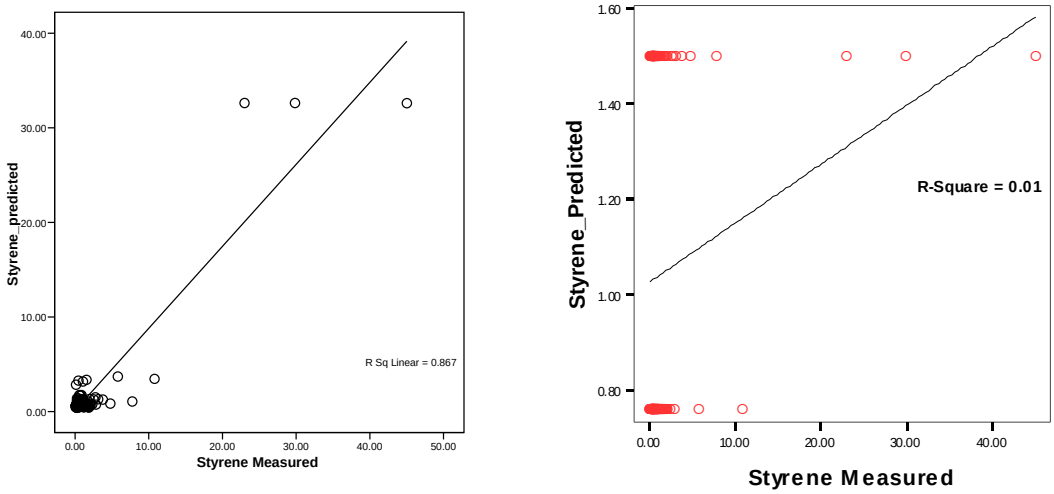

Figure A20.30.Styrene concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

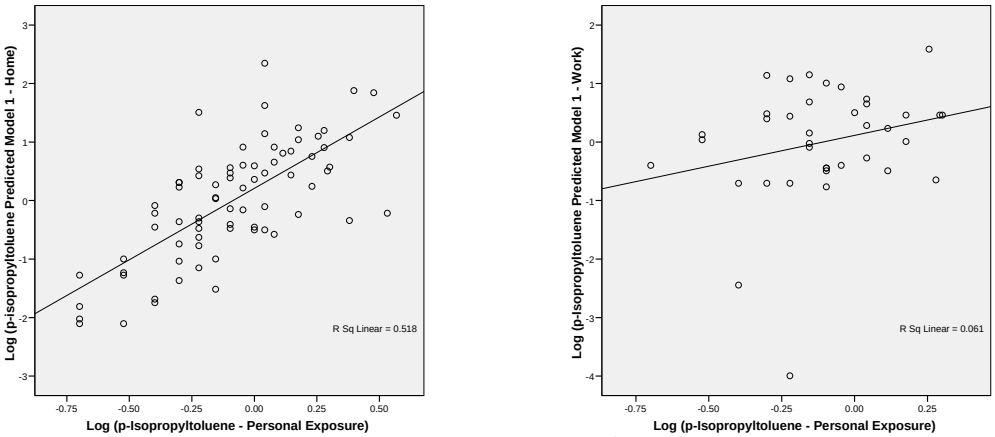

Figure A20.31.p-Isopropyltoluene concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

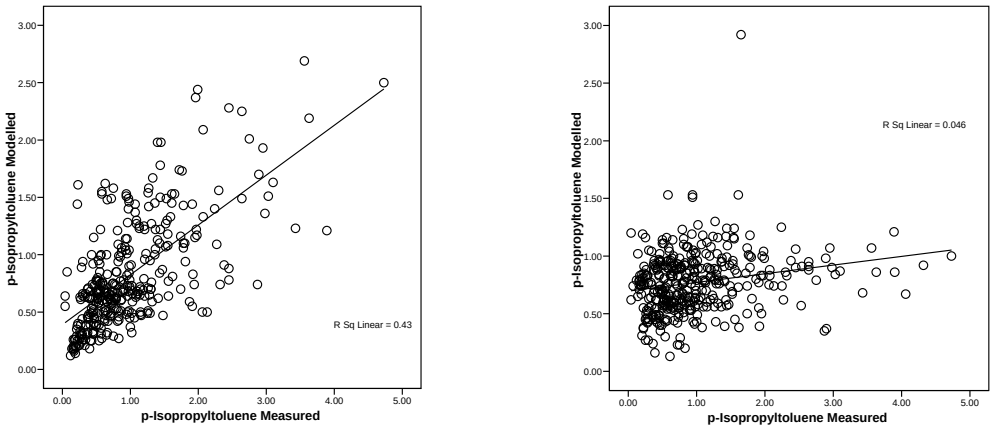

Figure A20.32.p-Isopropyltoluene concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

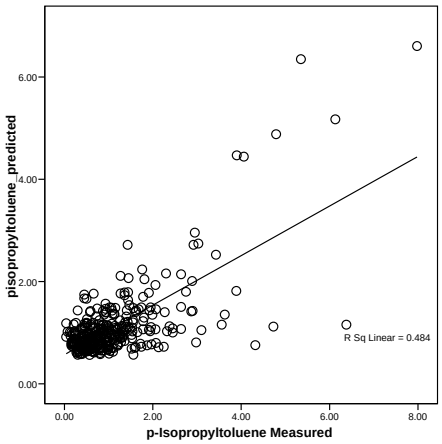

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Figure A20.33.p-Isopropyltoluene concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

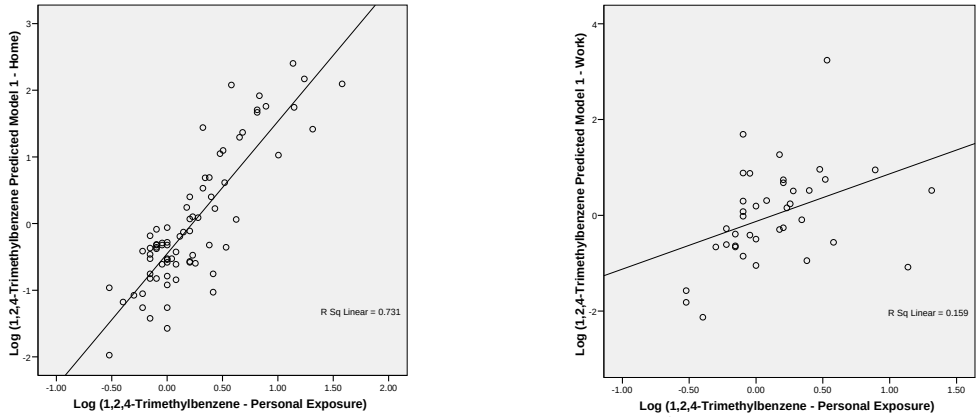

Figure A20.34.1.2.4-Trimethylbenzene concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

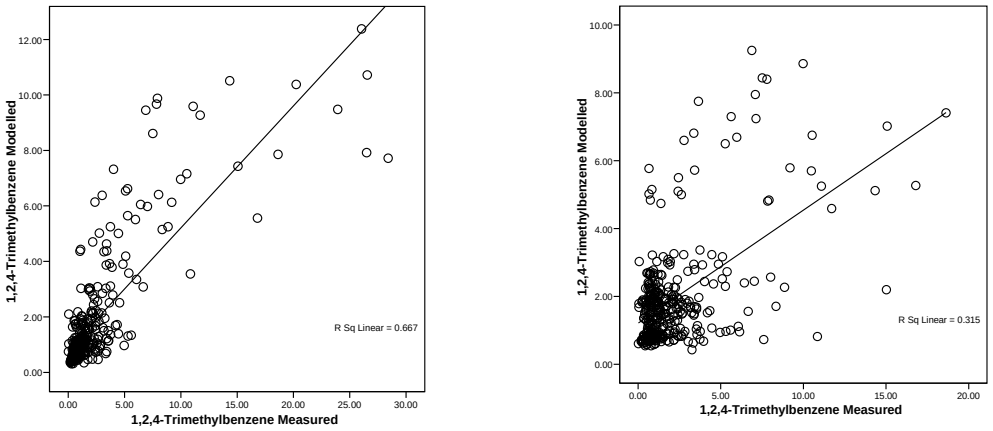

Figure A20.35.1.2.4-Trimethylbenzene concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

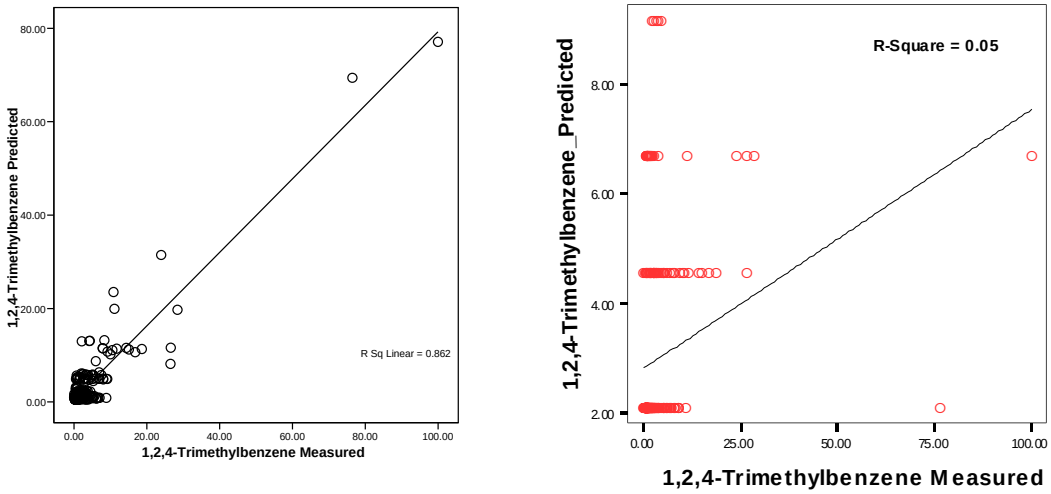

Figure A20.36. 1,2,4-Trimethylbenzene concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

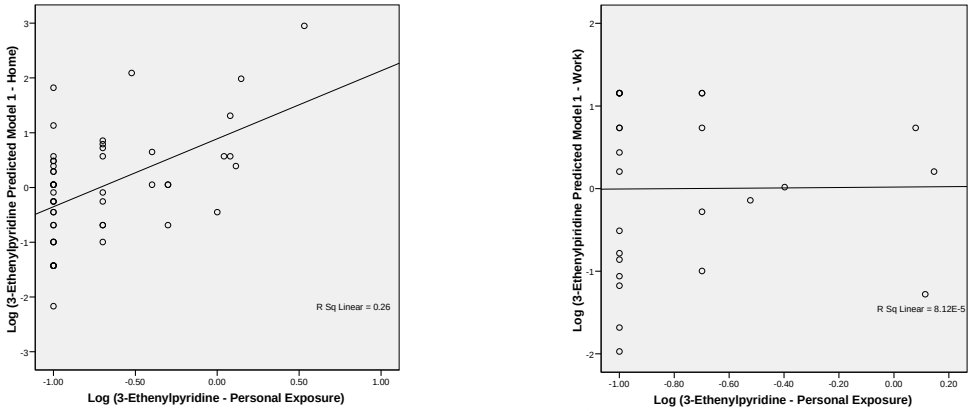

Figure A20.37.3-ethenylpyridine concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

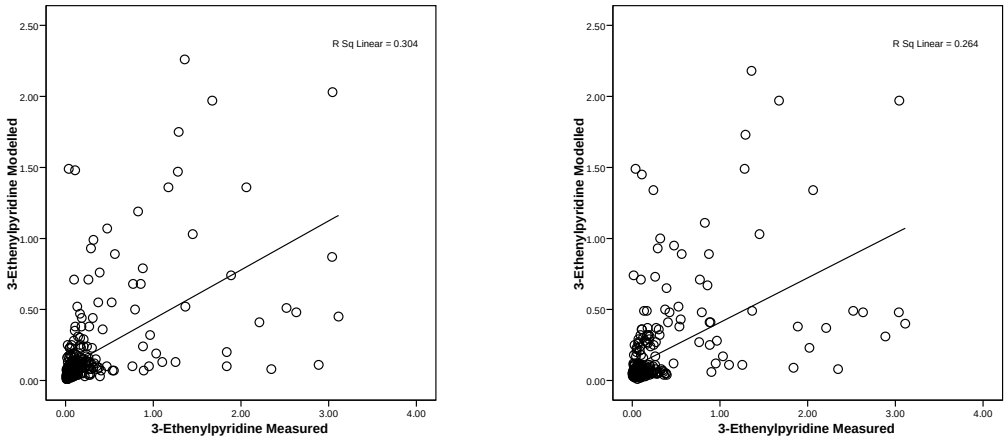

Figure A20.38.3-ethenylpyridine concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

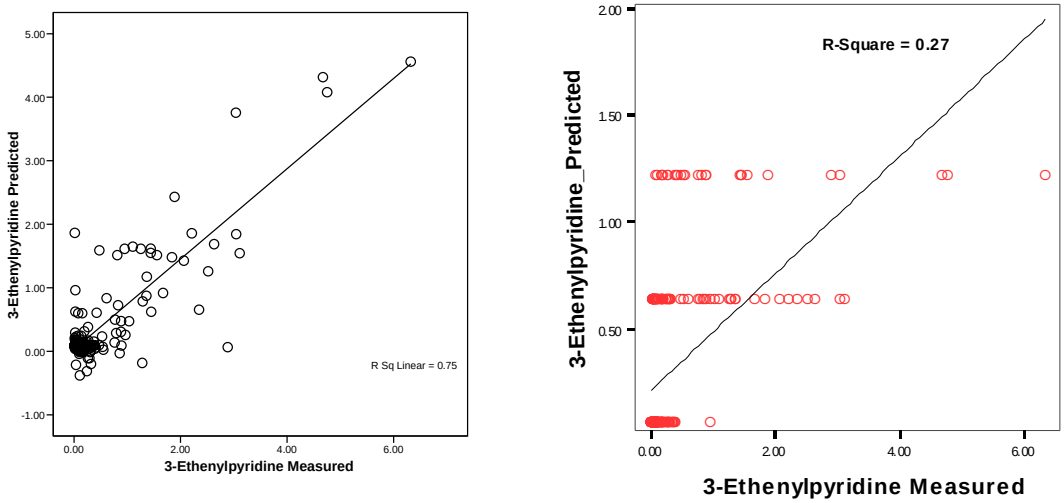

Figure A20.39.3-ethenylpyridine concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

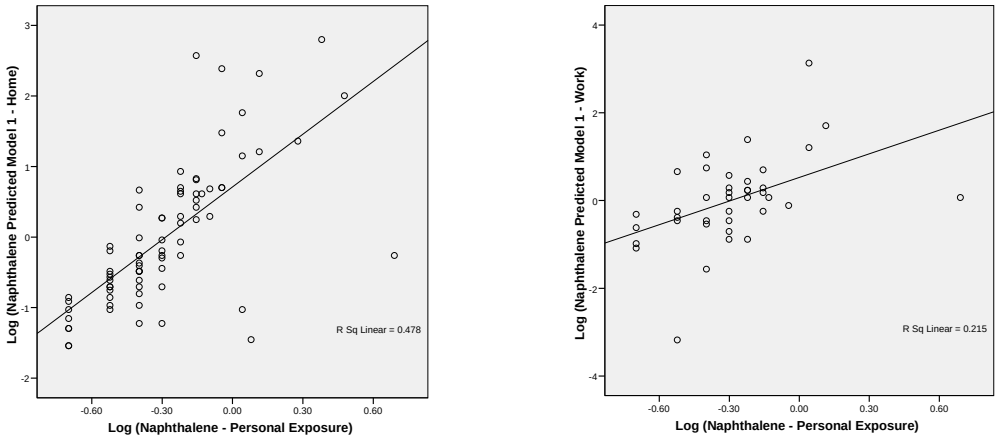

Figure A20.40.Naphthalene concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

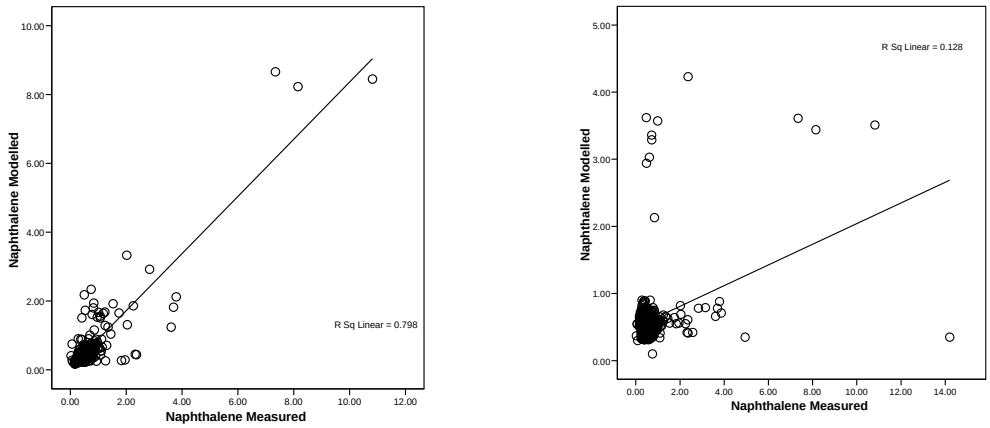

Figure A20.41.Naphthalene concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

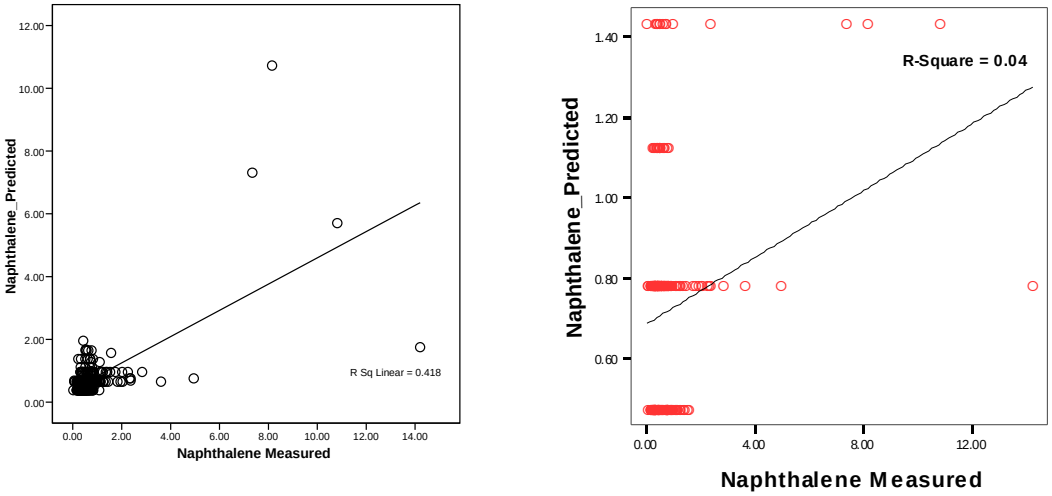

Figure A20.42.Naphthalene concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

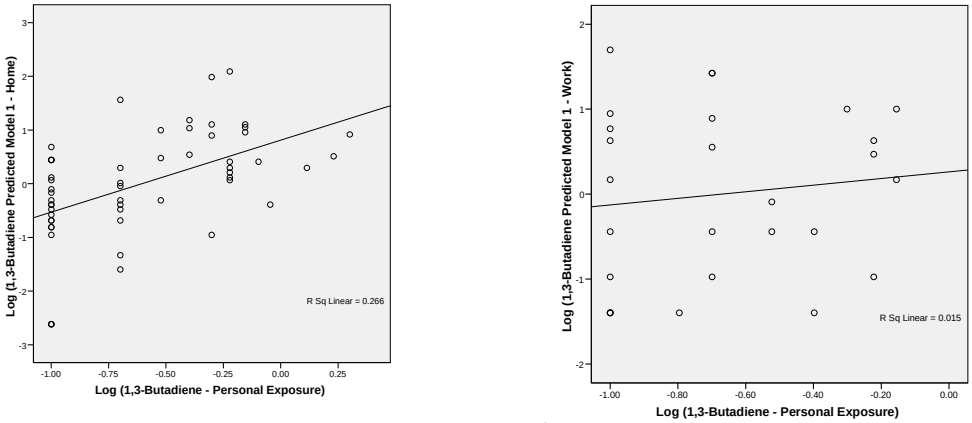

Figure A20.43.1,3-Butadiene concentrations (µg/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

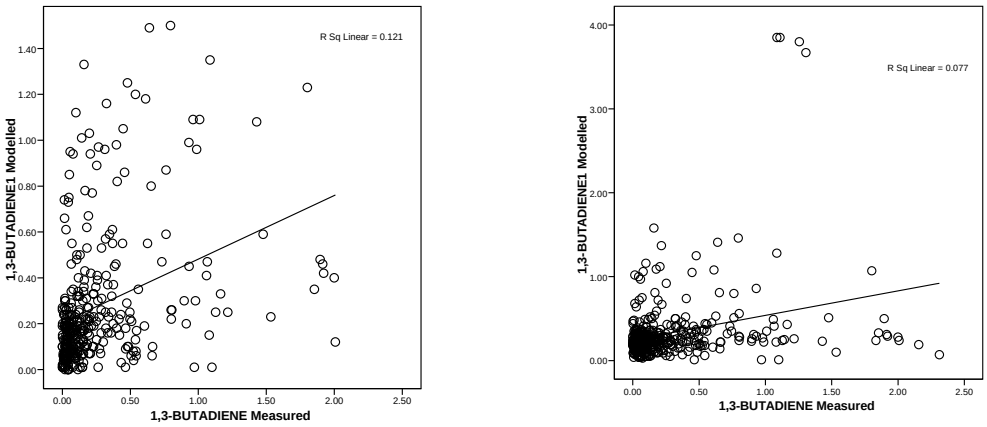

Figure A20.44.1,3-Butadiene concentrations (µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

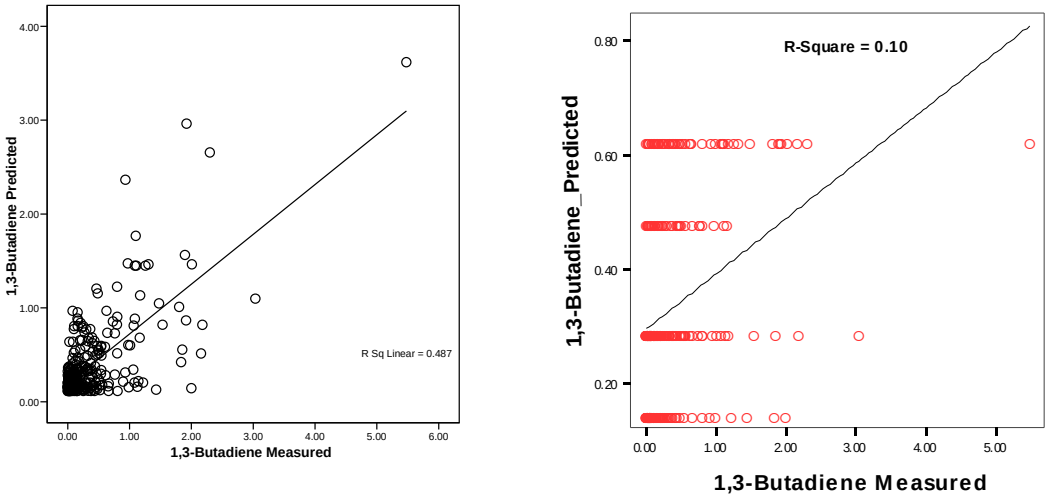

Figure A20.45.1,3-Butadiene concentrations (in µg/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

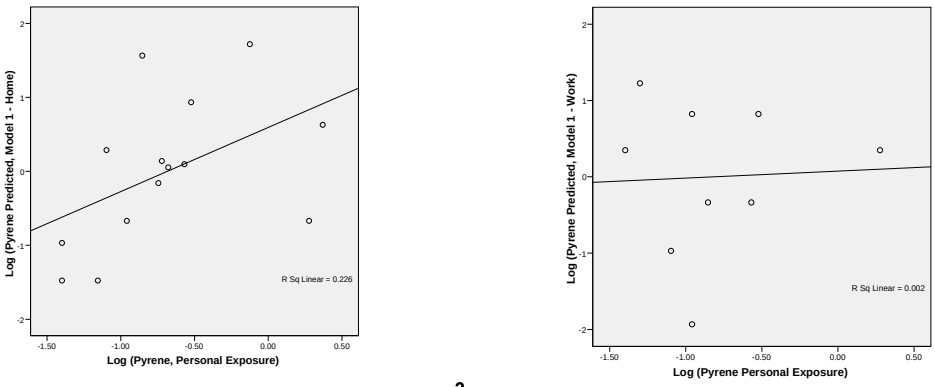

Figure A20.46.Pyridine concentrations (ng/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

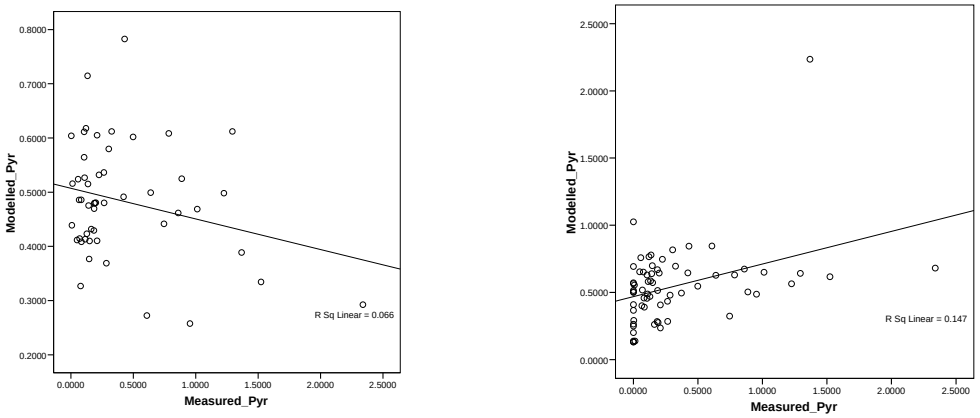

Figure A20.47. Modelled vs. measured Pyridine concentrations (ng/m^3) (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

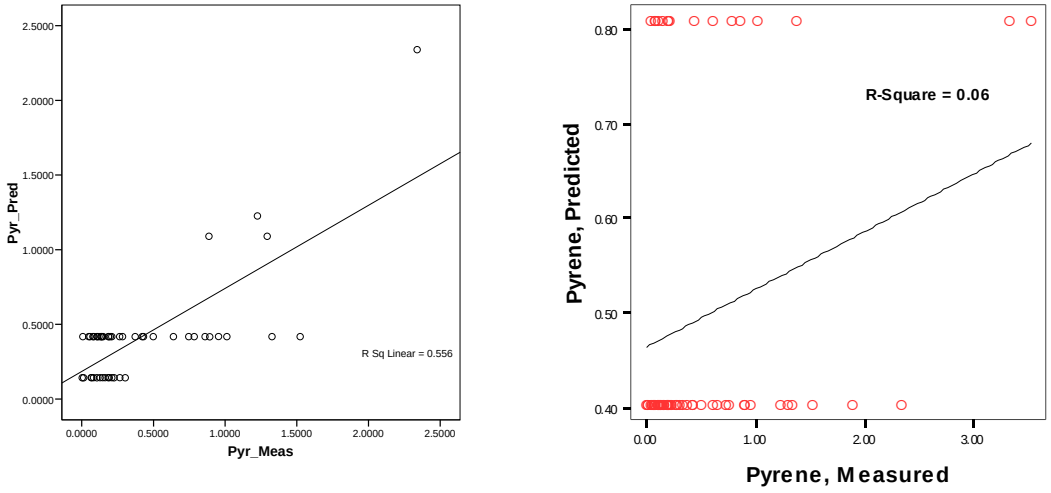

Figure A20.48.Pyrene concentrations (in ng/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

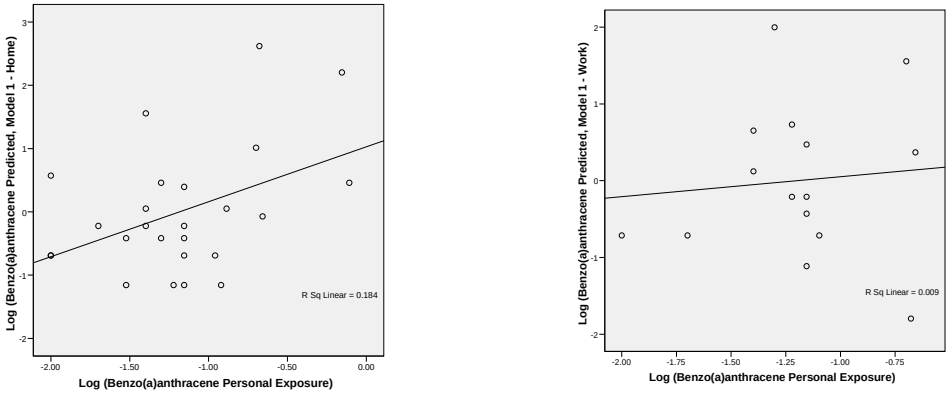

Figure A20.49. Benzo(a)anthracene concentrations (ng/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

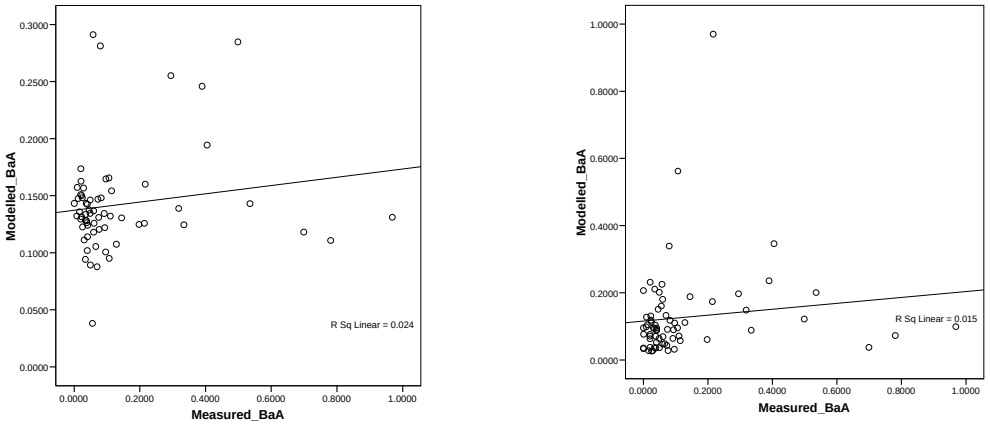

Figure A20.50. Modelled vs. measured Benzo(a)anthracene concentrations (ng/m^3) (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

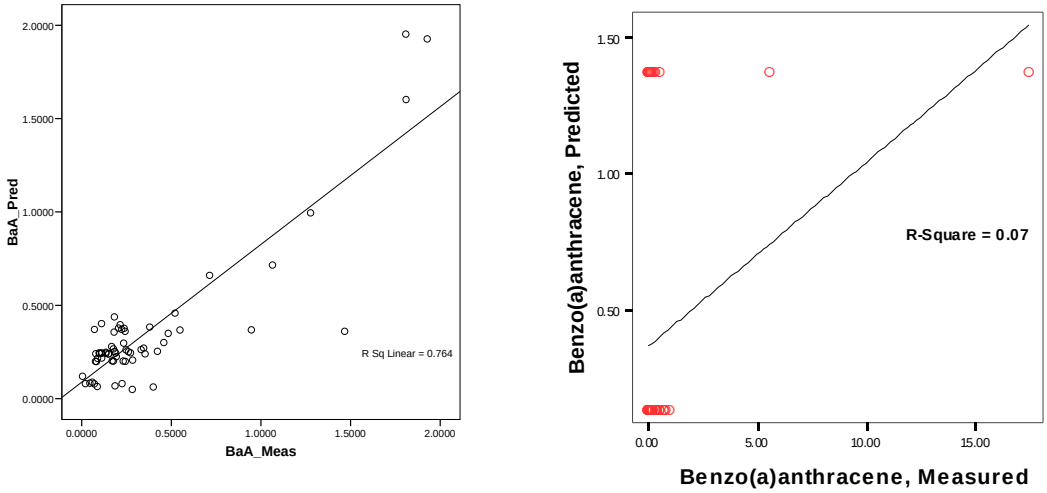

Figure A20.51.Benzo(a)anthracene concentrations (in ng/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

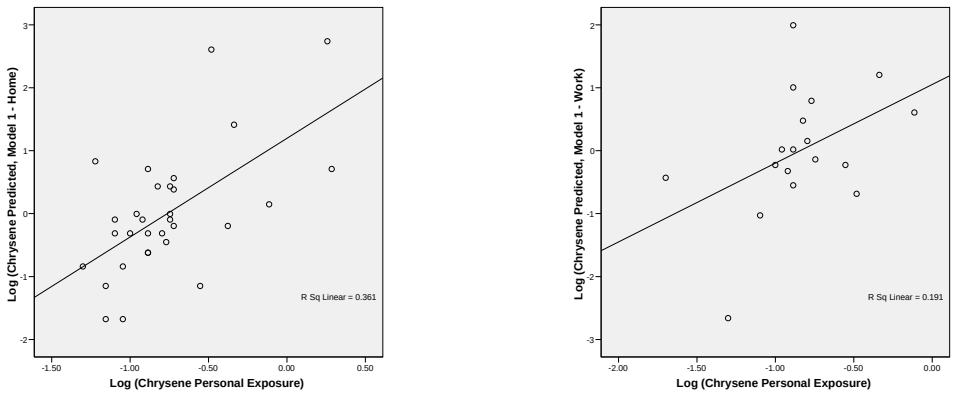

Figure A20.52. Chrysene concentrations (ng/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

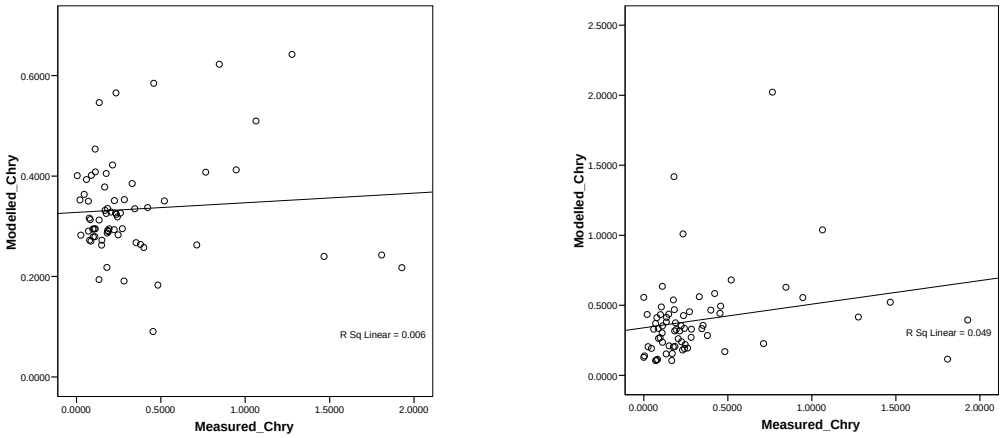

Figure A20.53. Modelled vs. measured Chrysene concentrations (ng/m^3) (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

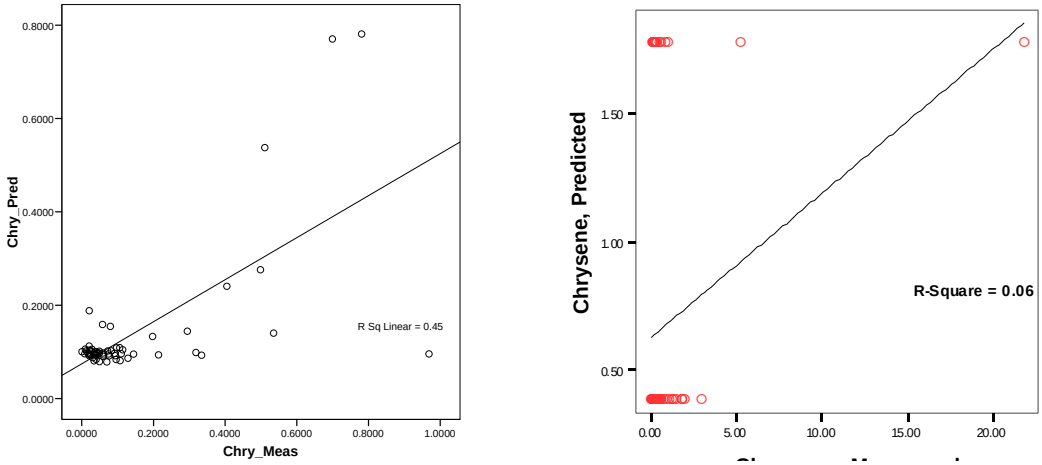

Figure A20.54. Chrysene concentrations (in ng/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

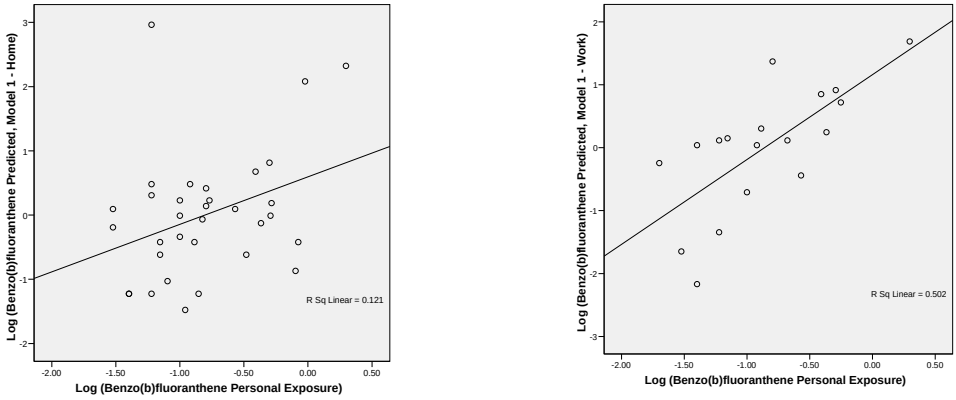

Figure A20.55. Benzo(b)fluoranthene concentrations (ng/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

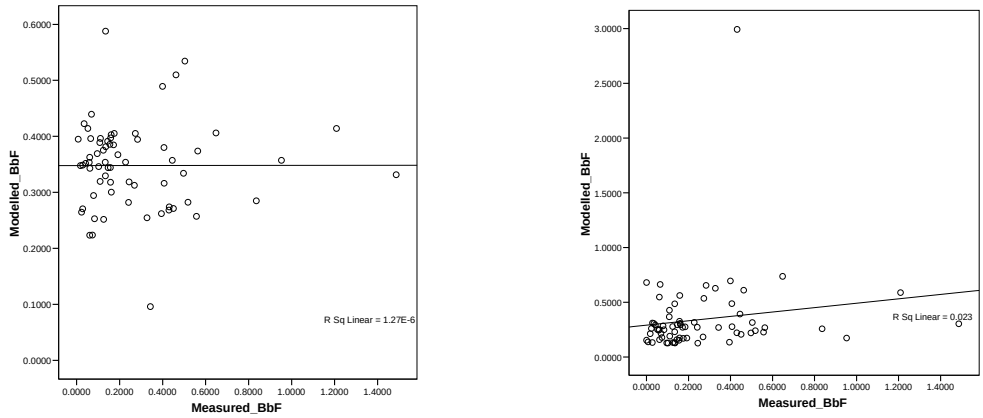

Figure A20.56. Modelled vs. measured Benzo(b)fluoranthene concentrations (ng/m^3) (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

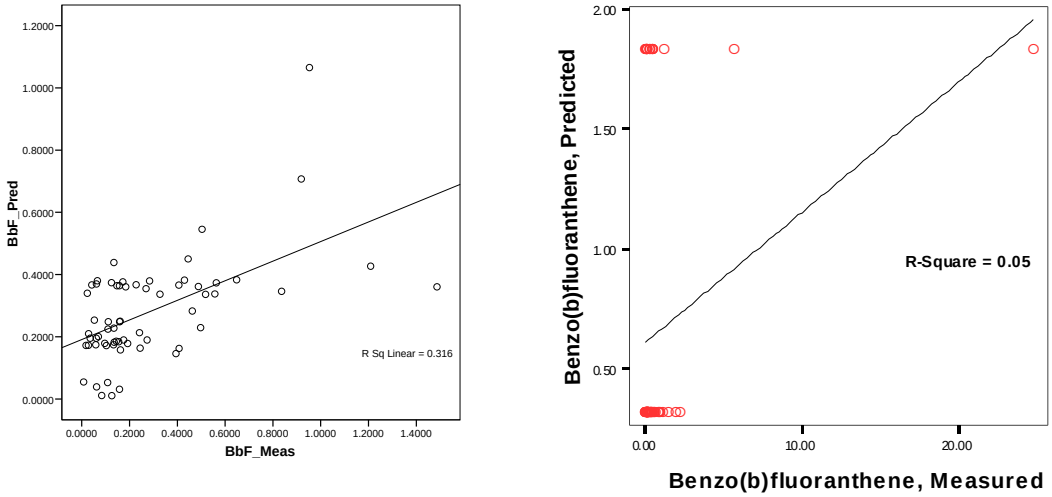

Figure A20.57.Benzo(b)fluoranthene concentrations (in ng/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

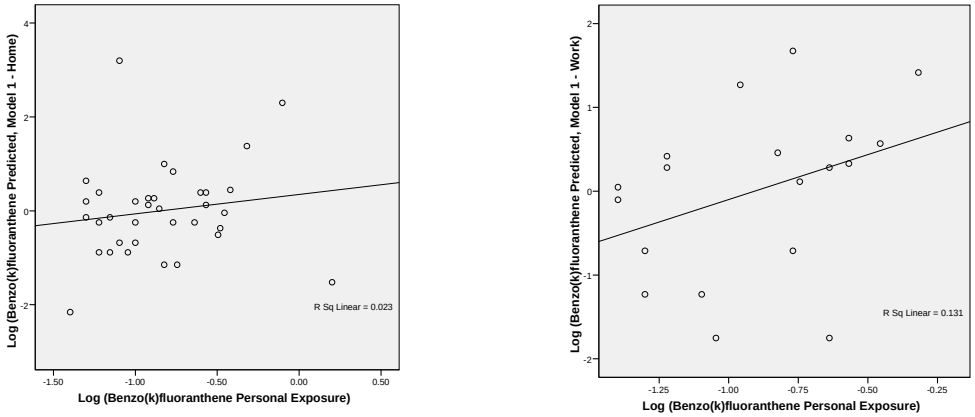

Figure A20.58. Benzo(k)fluoranthene concentrations (ng/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

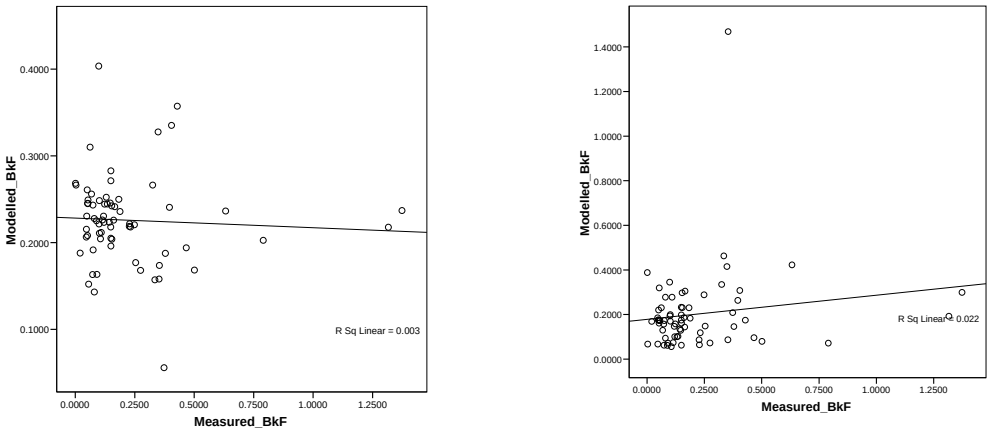

Figure A20.59. Modelled vs. measured Benzo(k)fluoranthene concentrations (ng/m^3) (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

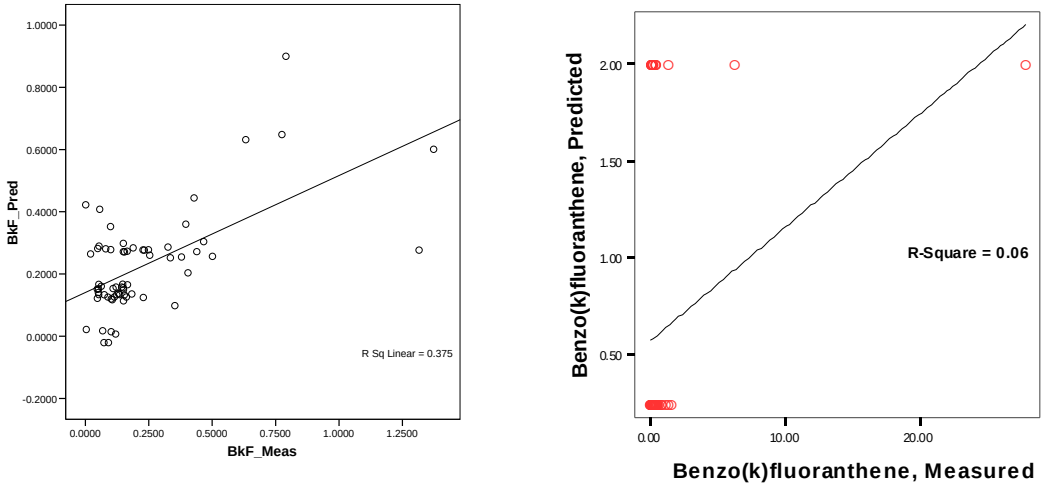

Figure A20.60.Benzo(k)fluoranthene concentrations (in ng/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

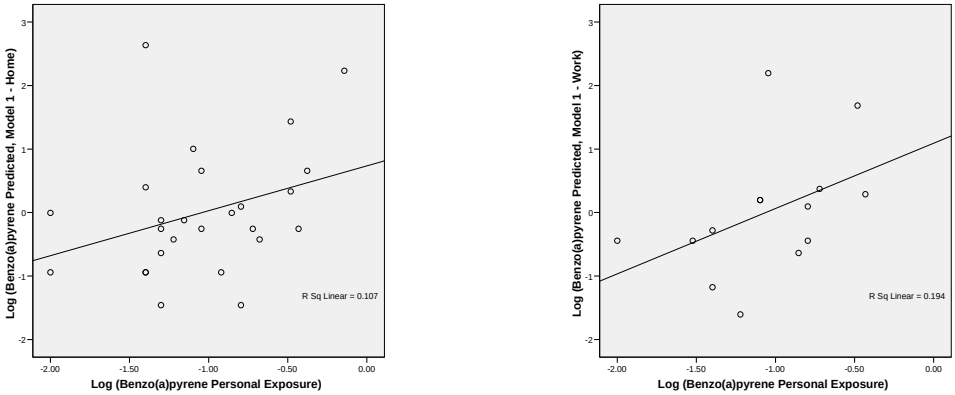

Figure A20.61. Benzo(a)pyrene concentrations (ng/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

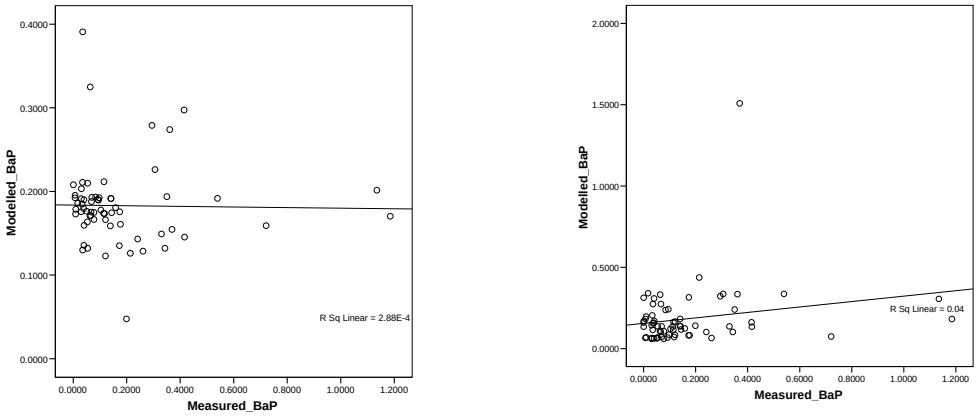

Figure A20.62. Modelled vs. Measured Benzo(a)pyrene concentrations (ng/m^3) (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

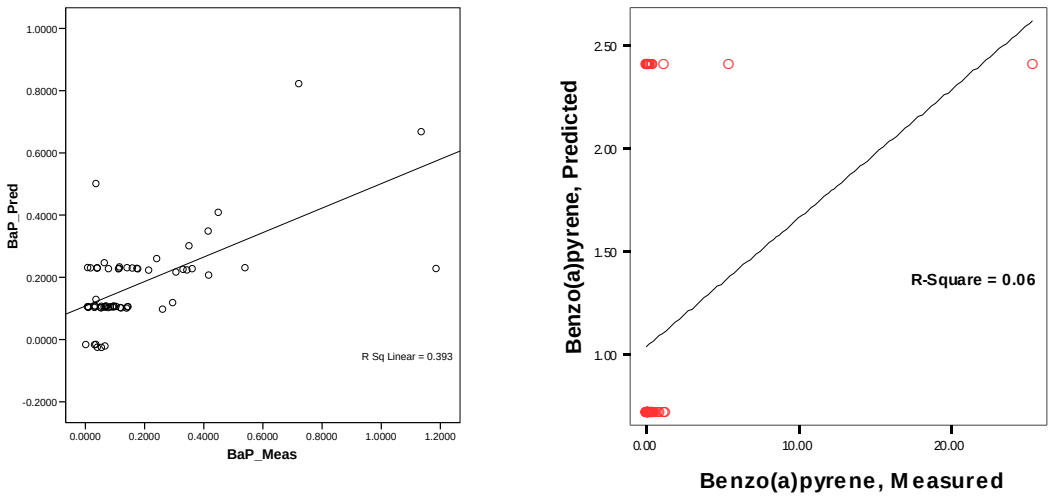

Figure A20.63.Benzo(a)pyrene concentrations (in ng/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

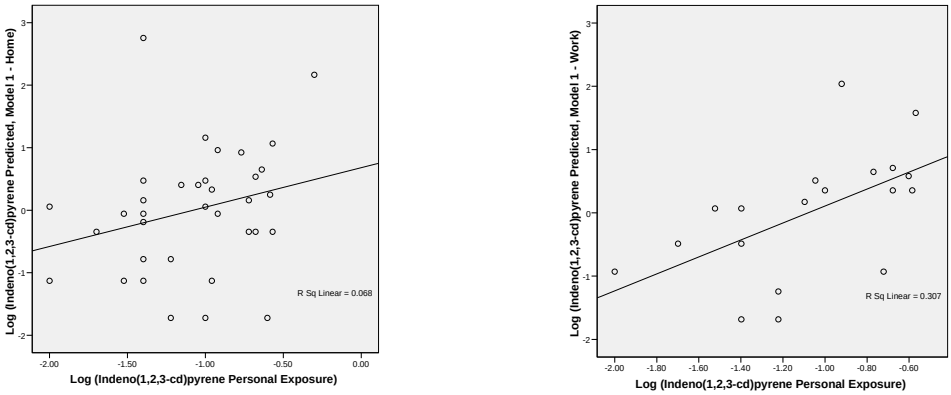

Figure A20.64. Indeno(1,2,3-cd)pyrene concentrations (ng/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

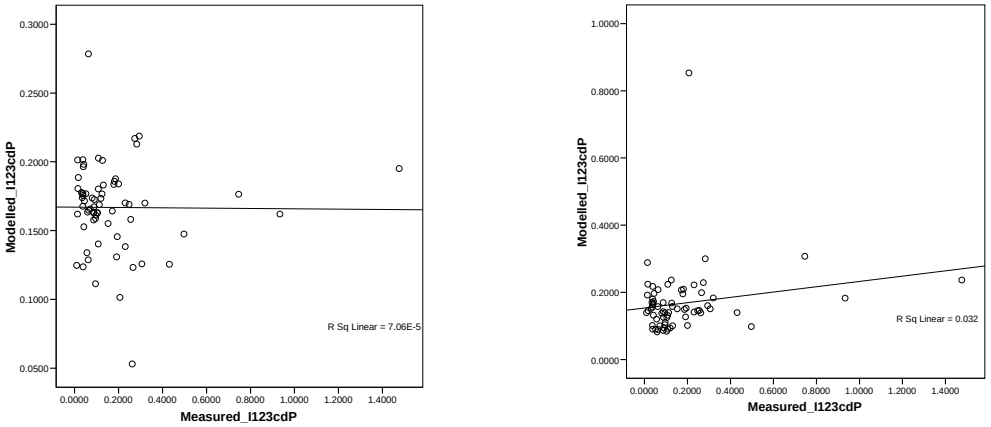

Figure A20.65. Modelled vs. measured Indeno(1,2,3-cd)pyrene concentrations (ng/m^3) (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

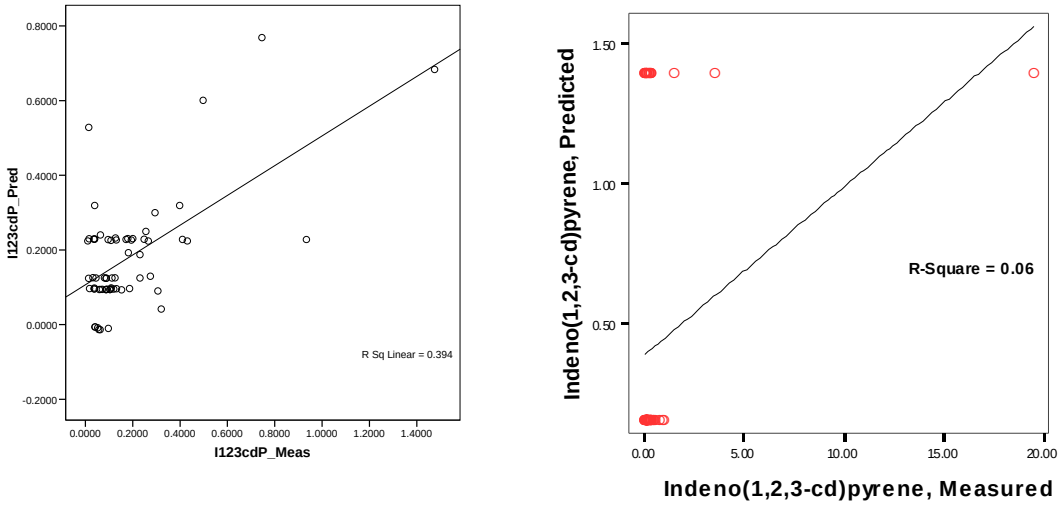

Figure A20.66.Indeno(1.2.3-c.d)pyrene concentrations (in ng/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

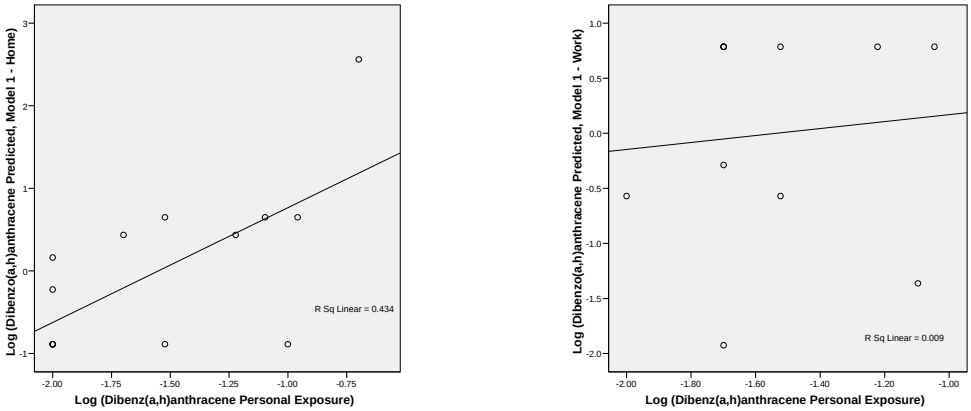

Figure A20.67. Dibenzo(a,h)anthracene concentrations (ng/m3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

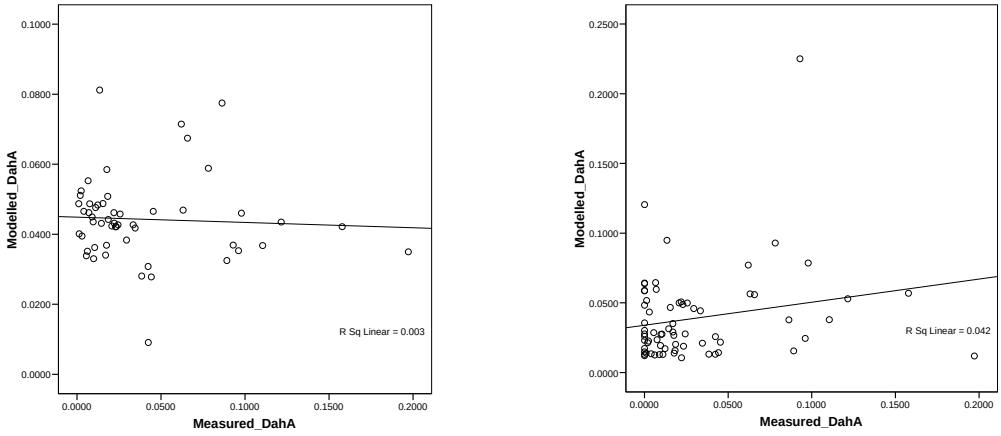

Figure A20.68. Modelled vs. measured Dibenzo(a,h)anthracene (ng/m^3) concentrations (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

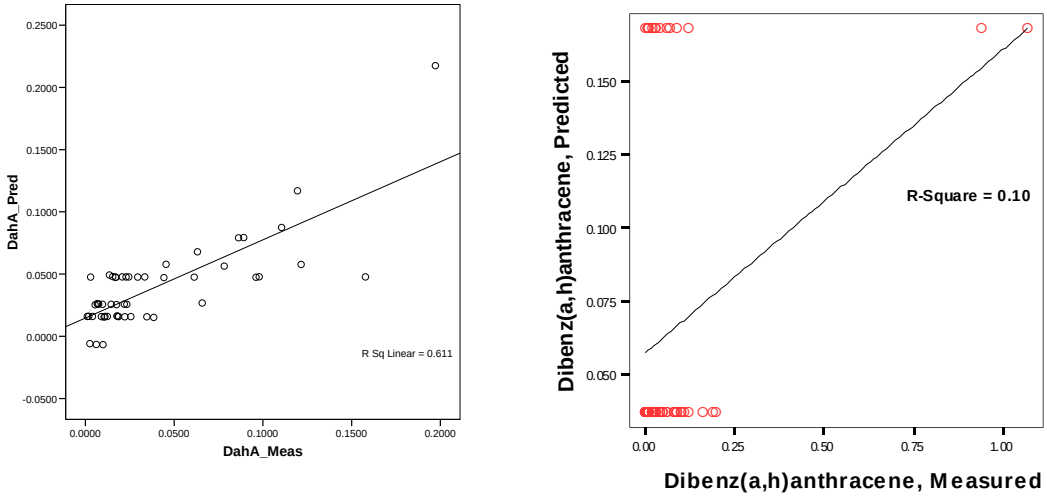

Figure A20.69.Dibenzo(a.h)anthracene concentrations (in ng/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

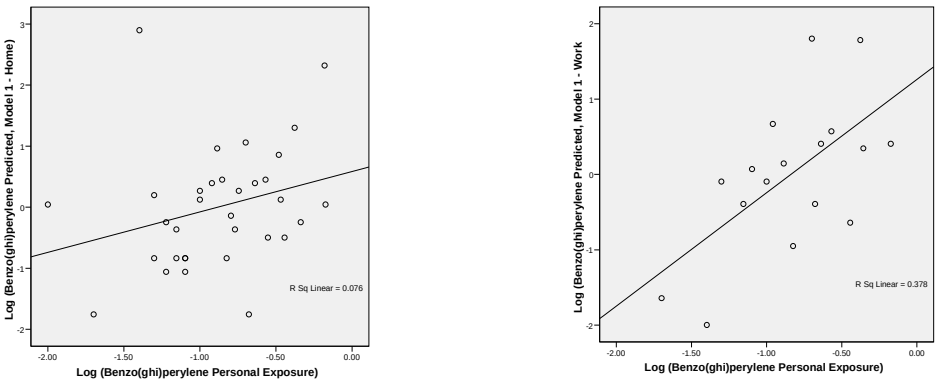

Figure A20.70. Benzo(ghi)perylene concentrations (ng/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

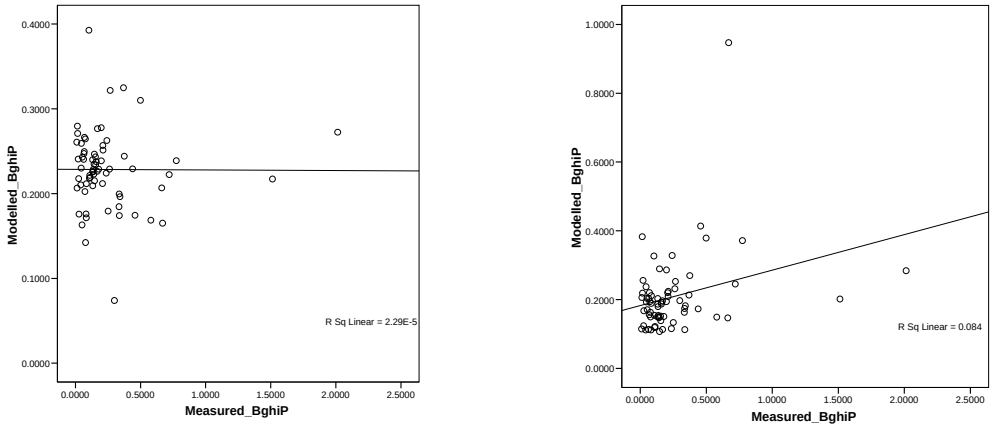

Figure A20.71. Modelled vs. measured Benzo(ghi)perylene concentrations (ng/m^3) (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

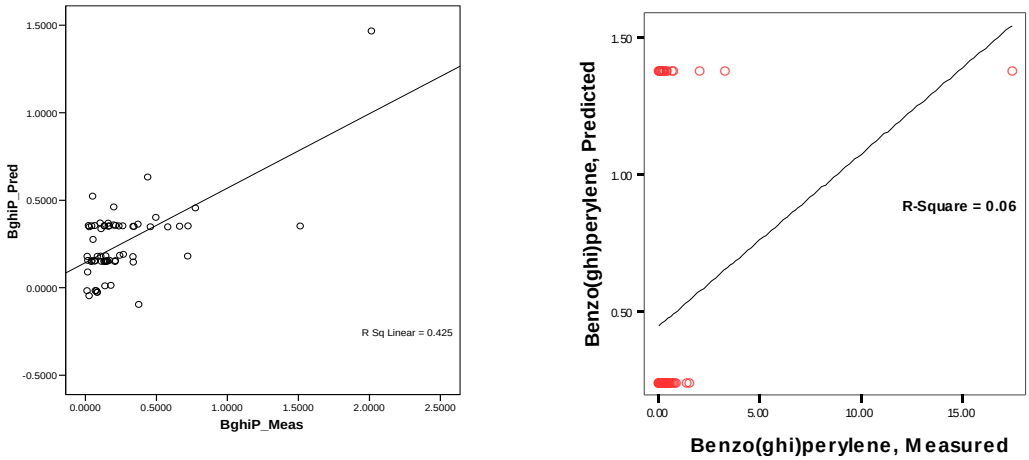

Figure A20.72. Benzo(ghi)perylene concentrations (in ng/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

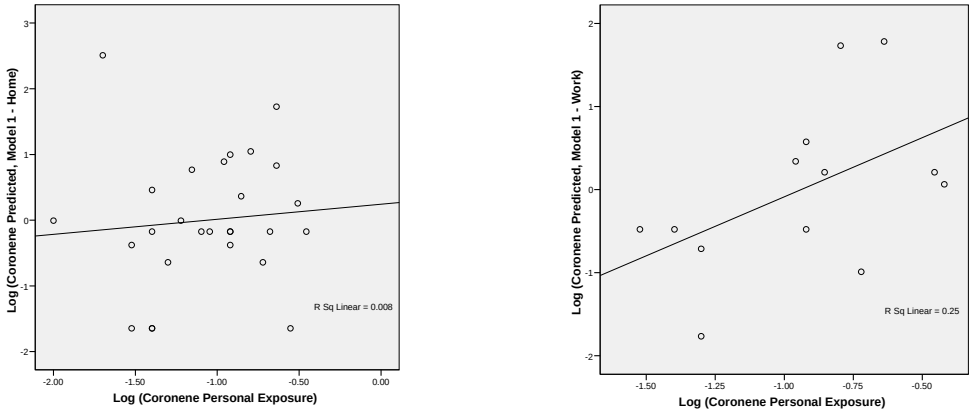

Figure A20.73. Coronene concentrations (ng/m^3) predicted with Model 1 vs. concentration measured. (a) Results of training dataset used in model development - home (b) Results of training dataset used in model development – work.

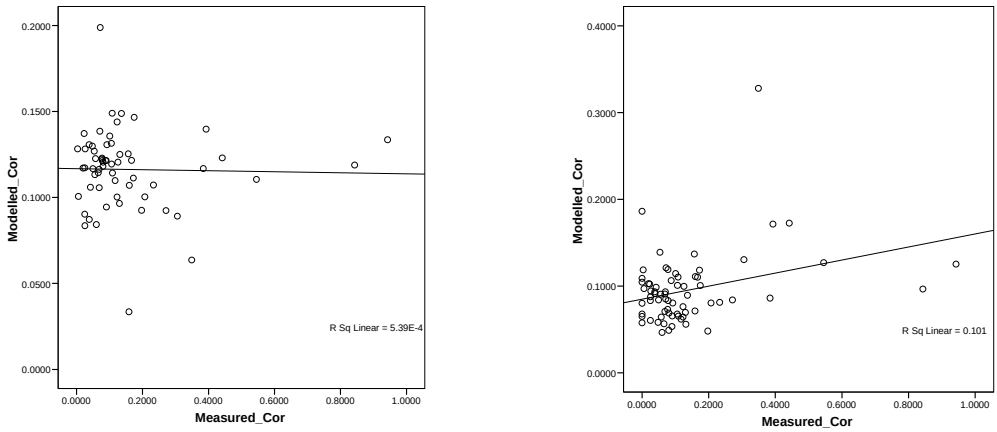

Figure A20.74. Modelled vs. measured Coronene concentrations (ng/m^3) (a) Results of training dataset used in Model 2 (b) Results of training dataset used in Model 3.

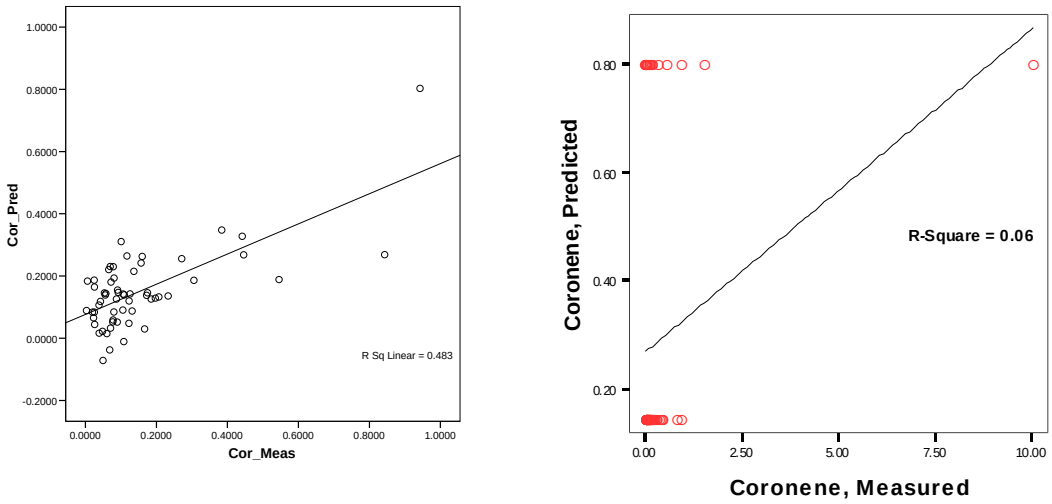

Figure A20.75.Coronene concentrations (in ng/m^3) predicted vs. concentration measured. (a) Results of training dataset used in Model 4. (b) Results of training dataset used in Model 5.

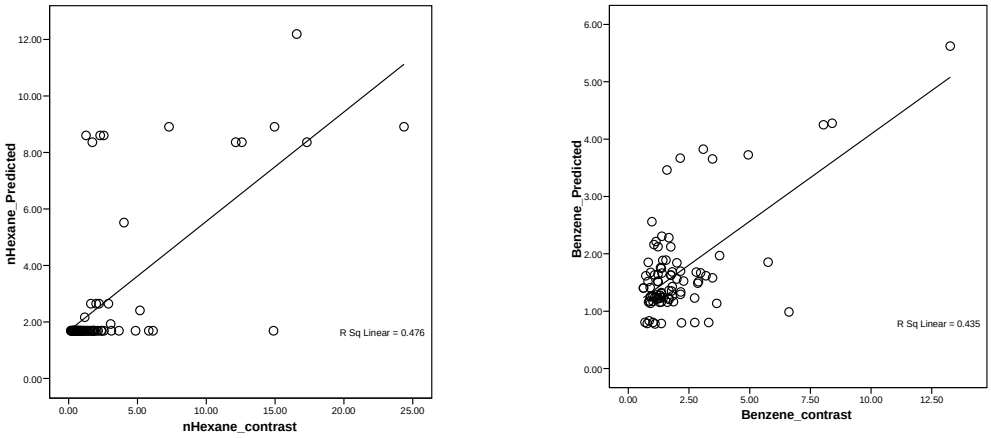

Figure A20.76.Concentrations (in μg/m^3) predicted with Model 4 vs. concentration measured, results of validation dataset. (a) n-hexane (b) Benzene

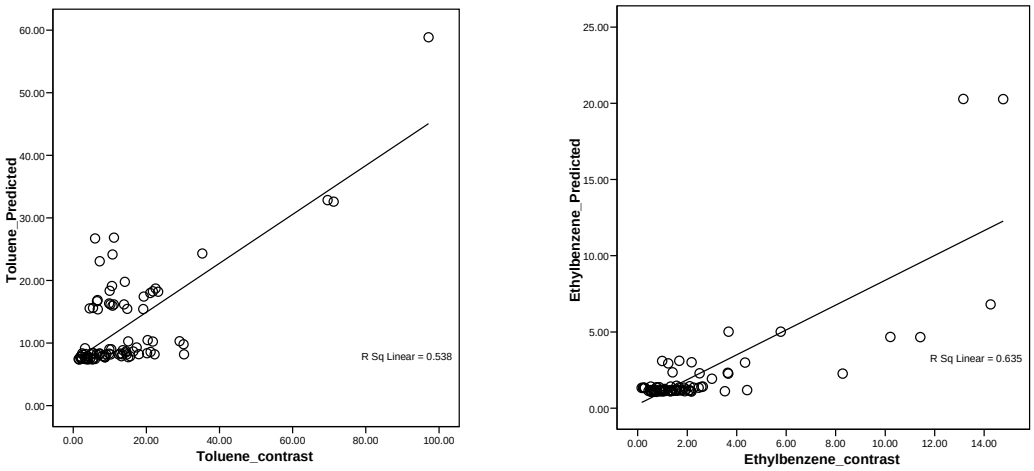

Figure A20.77.Concentrations (in μg/m^3) predicted with Model 4 vs. concentration measured, results of validation dataset. (a) Toluene (b) Ethylbenzene

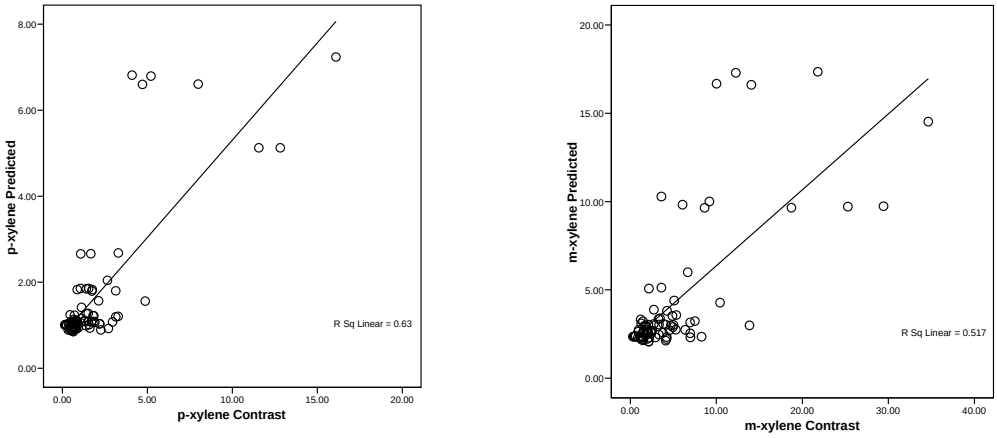

Figure A20.78.Concentrations (in μg/m^3) predicted with Model 4 vs. concentration measured, results of validation dataset. (a) p-xylene (b) m-xylene

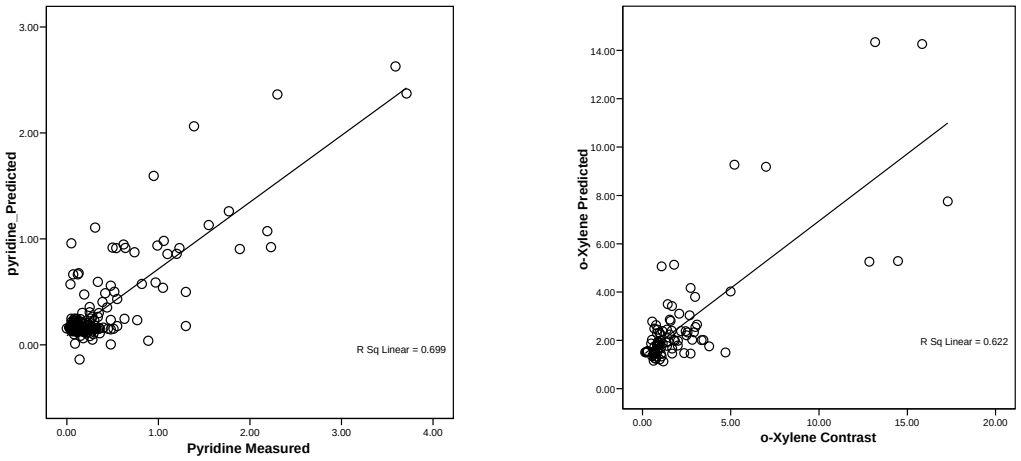

Figure A20.79.Concentrations (in μg/m^3) predicted with Model 4 vs. concentration measured, results of validation dataset. (a) pyridine (b) o-xylene

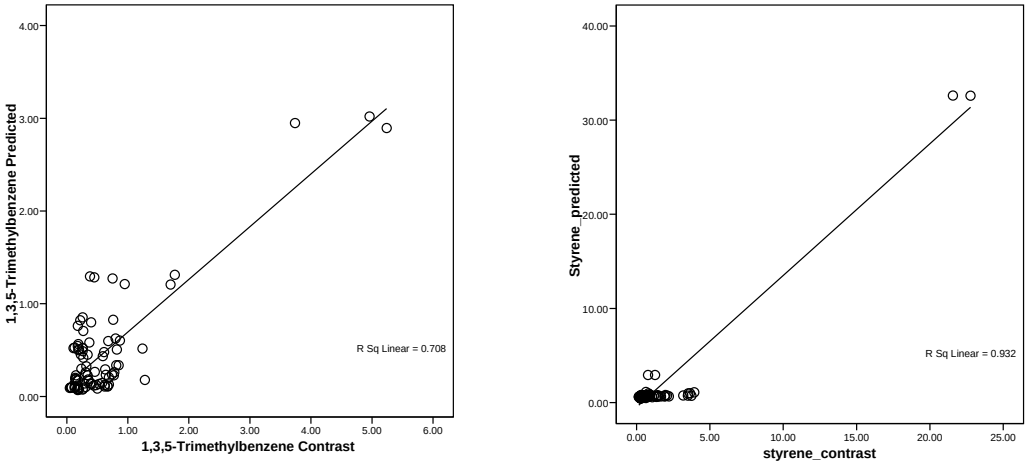

Figure A20.80.Concentrations (in μg/m^3) predicted with Model 4 vs. concentration measured, results of validation dataset. (a) 1.3.5-Trimethylbenzene (b) Styrene

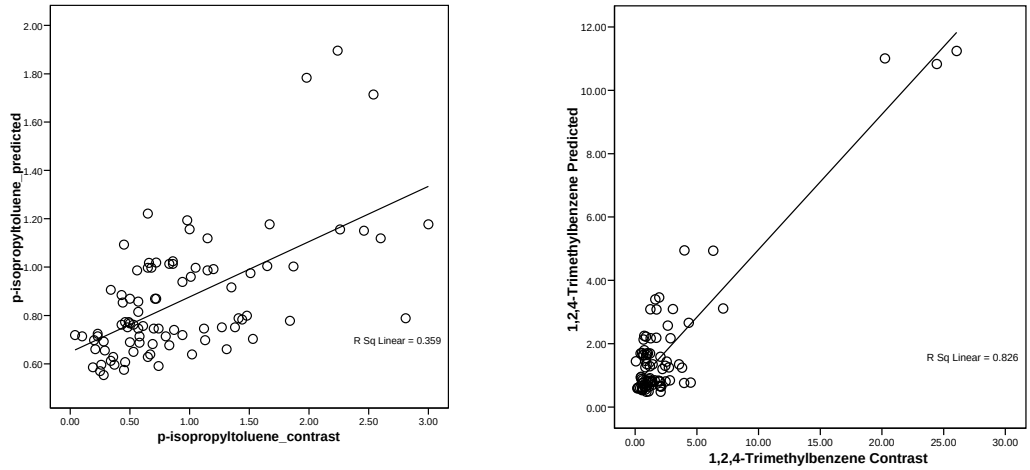

Figure A20.81.Concentrations (in μg/m^3) predicted with Model 4 vs. concentration measured, results of validation dataset. (a) p-Isopropyltoluene (b) 1,2,4-Trimethylbenzene

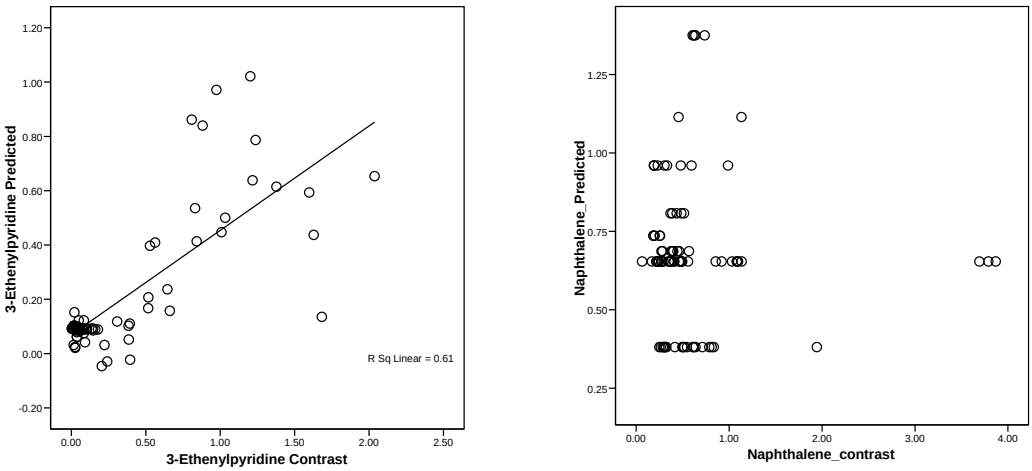

Figure A20.82.Concentrations (in μg/m^3) predicted with Model 4 vs. concentration measured, results of validation dataset. (a) 3-ethenylpyridine (b) Naphthalene

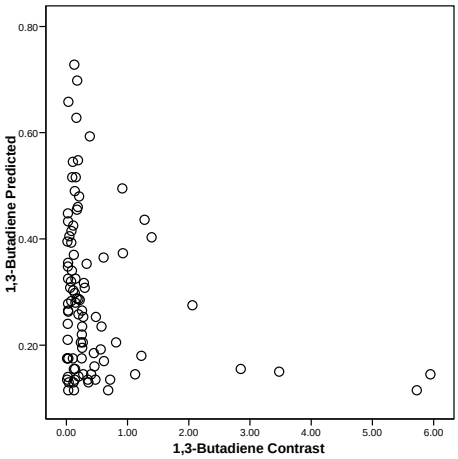

Figure A20.83.Concentrations (in μg/m^3) predicted with Model 4 vs. concentration measured, results of validation dataset. (a) 1,3-Butadiene

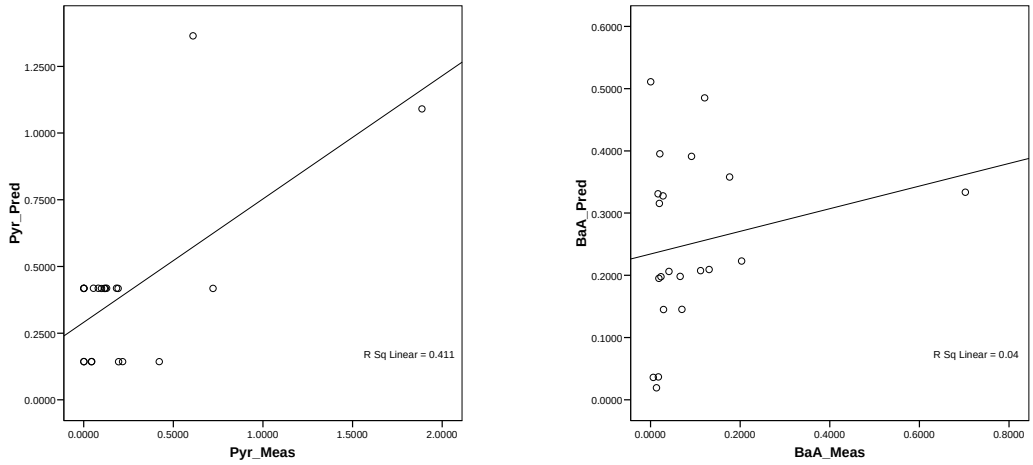

Figure A20.84.Concentrations (in μg/m^3) predicted with Model 4 vs. concentration measured, results of validation dataset. (a) Pyrene (b) Benzo(a)anthracene

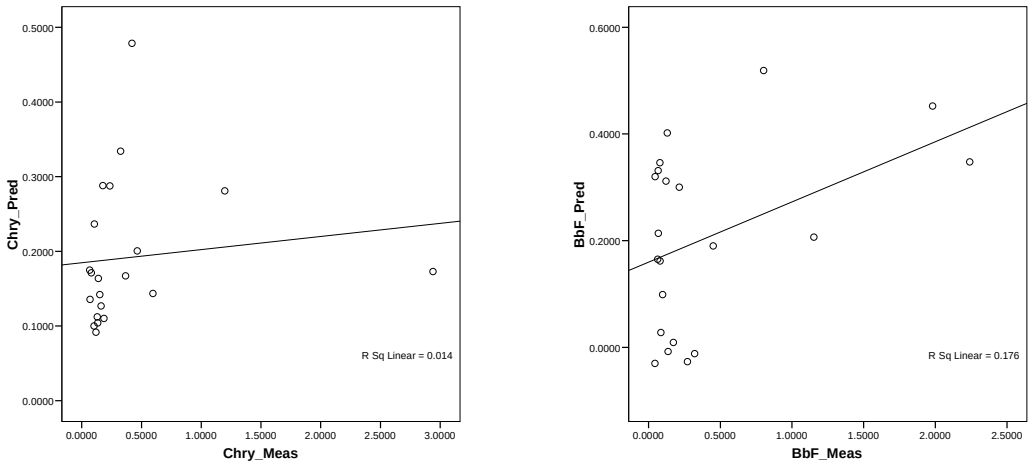

Figure A20.85.Concentrations (in μg/m^3) predicted with Model 4 vs. concentration measured, results of validation dataset. (a) Chrysene (b) Benzo(b)fluoranthene

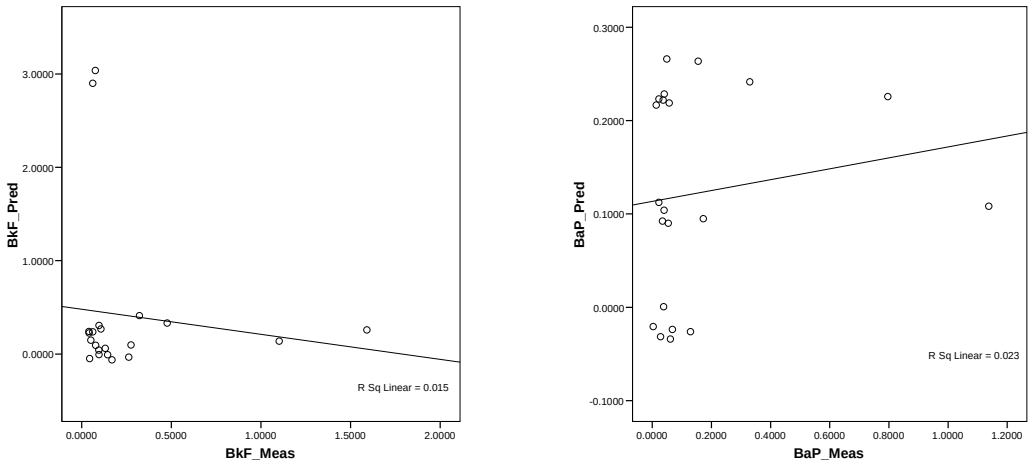

Figure A20.86.Concentrations (in μg/m^3) predicted with Model 4 vs. concentration measured, results of validation dataset. (a) Benzo(k)fluoranthene (b) Benzo(a)pyrene

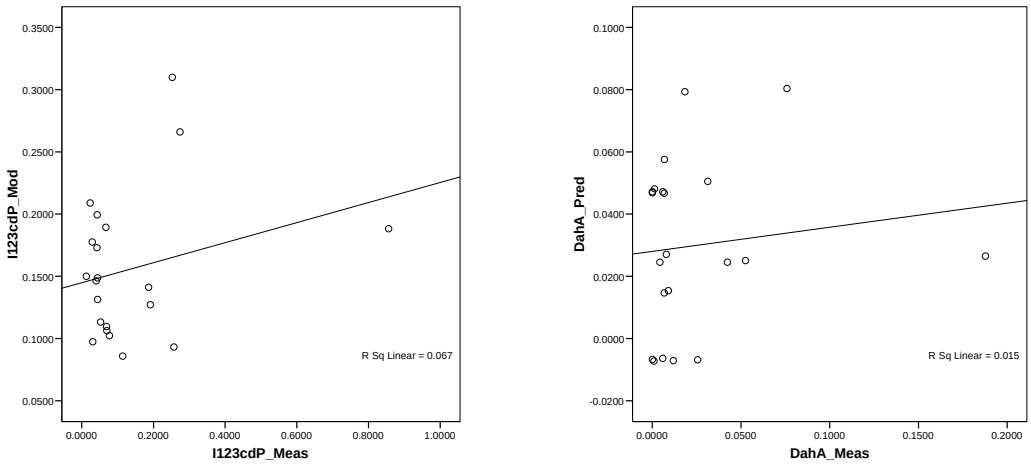

Figure A20.87. Concentrations (in μg/m^3) predicted with Model 4 vs. concentration measured, results of validation dataset. (a) Indeno(1.2.3-c.d)pyrene (b) Dibenzo(a.h)anthracene

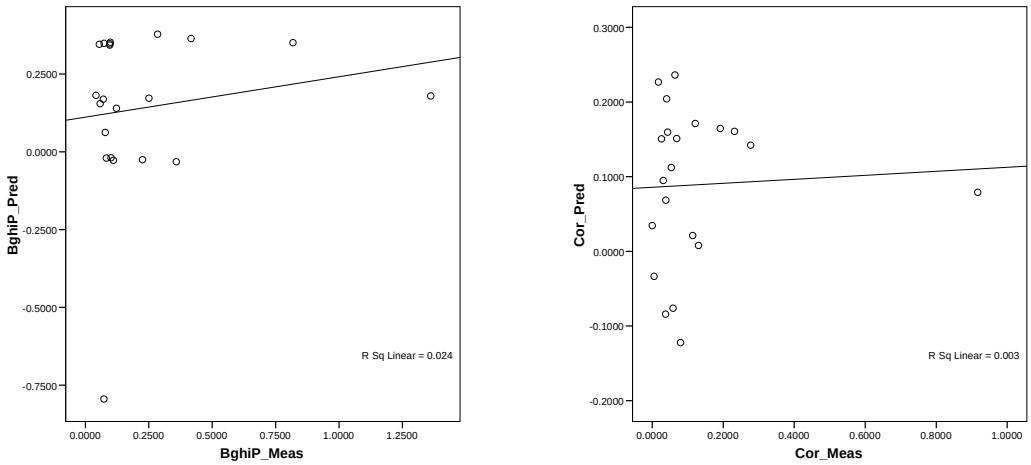

Figure A20.88. Concentrations (in μg/m^3) predicted with Model 4 vs. concentration measured, results of validation dataset. (a) Benzo(ghi)perylene (b) Coronene