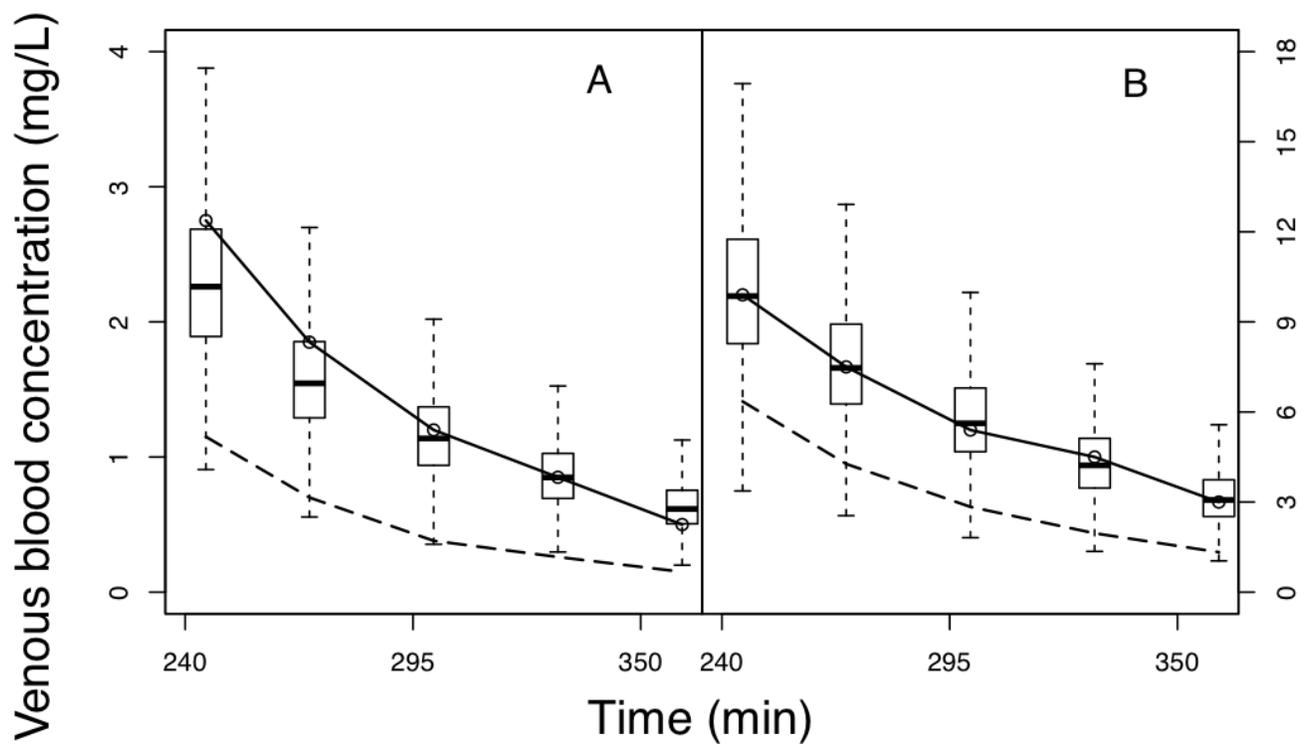
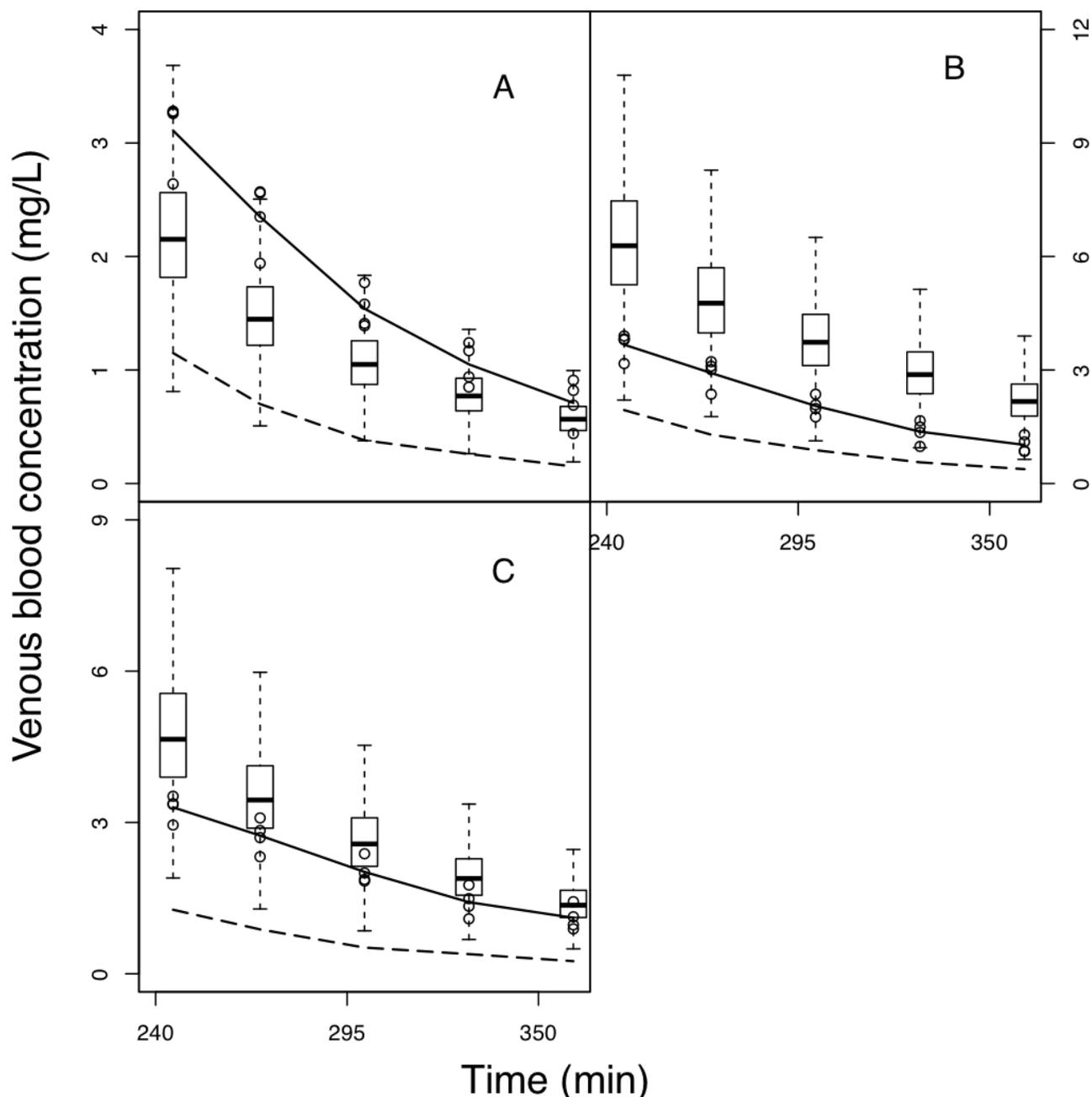


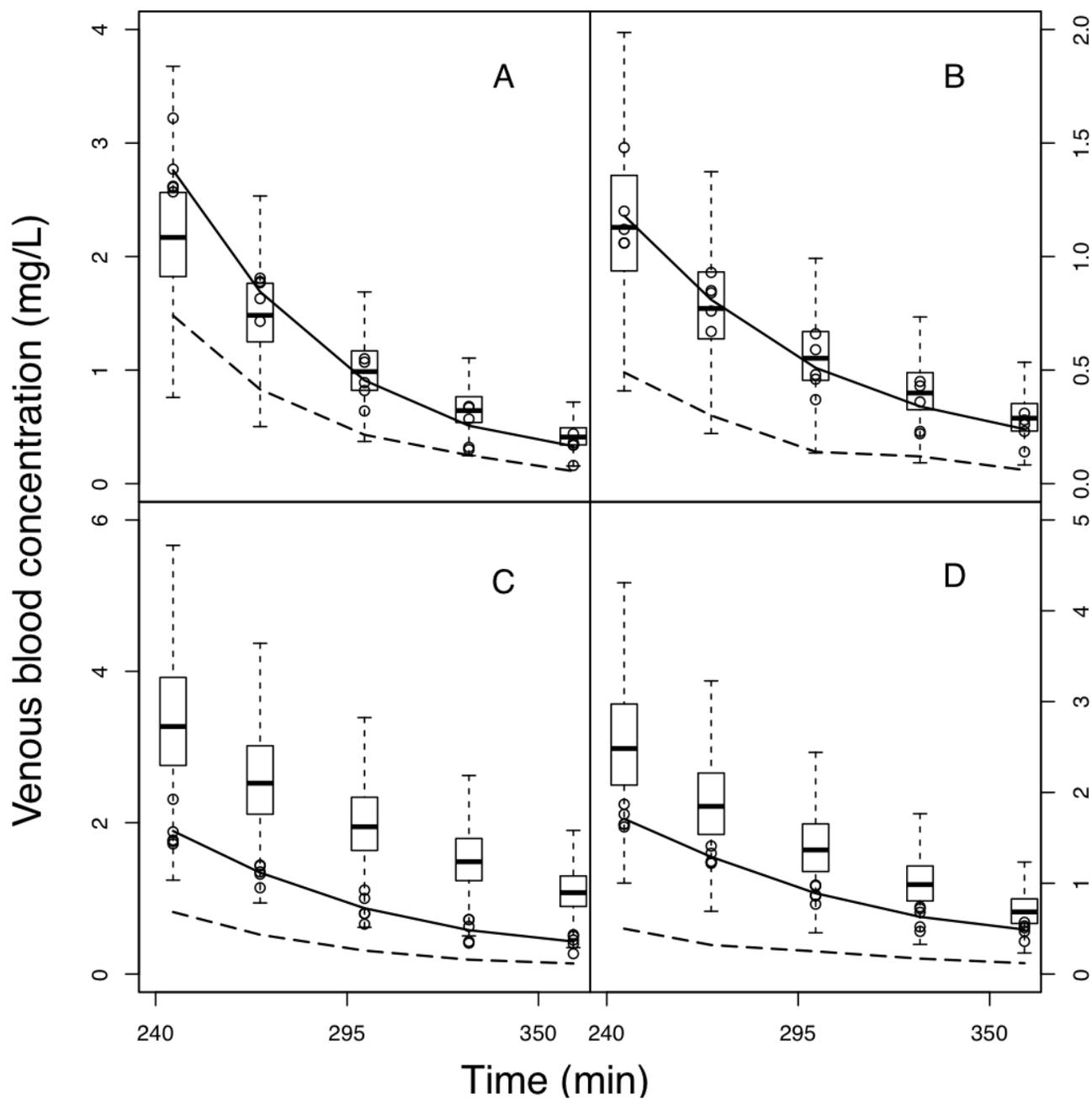
## Supplemental Figures



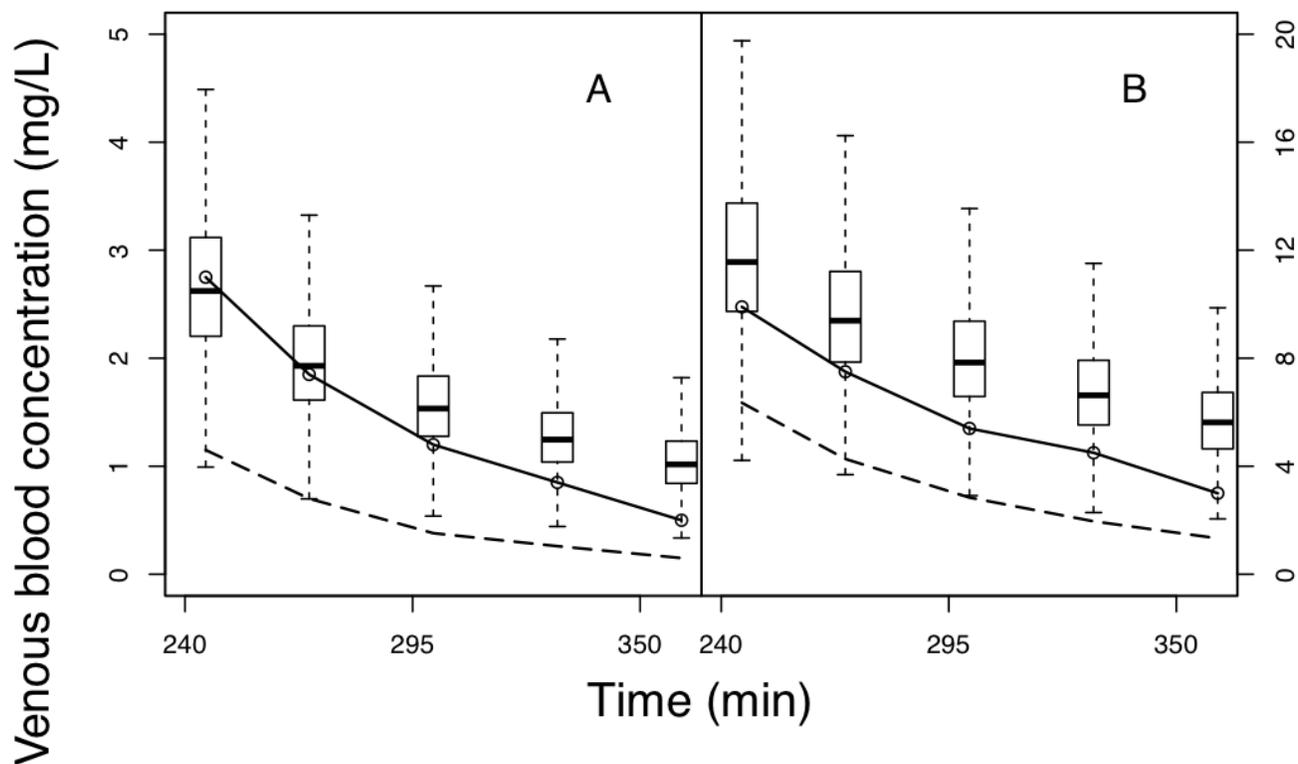
**Figure S3:** Global model II predictions - Blood kinetics of toluene (A) and *m*-xylene (B) after exposure to a binary mixture of 100 ppm of toluene and 200 ppm of *m*-xylene. The circles and solid lines show the mean experimental data for four rats (Tardif, 1996). The dashed lines show the blood kinetics of either toluene or *m*-xylene after single substance exposure to 100 ppm or 200 ppm in the air, respectively. The box plots display the inter-quartile range of the type I global model predictions (without any fitting to the mixture data).



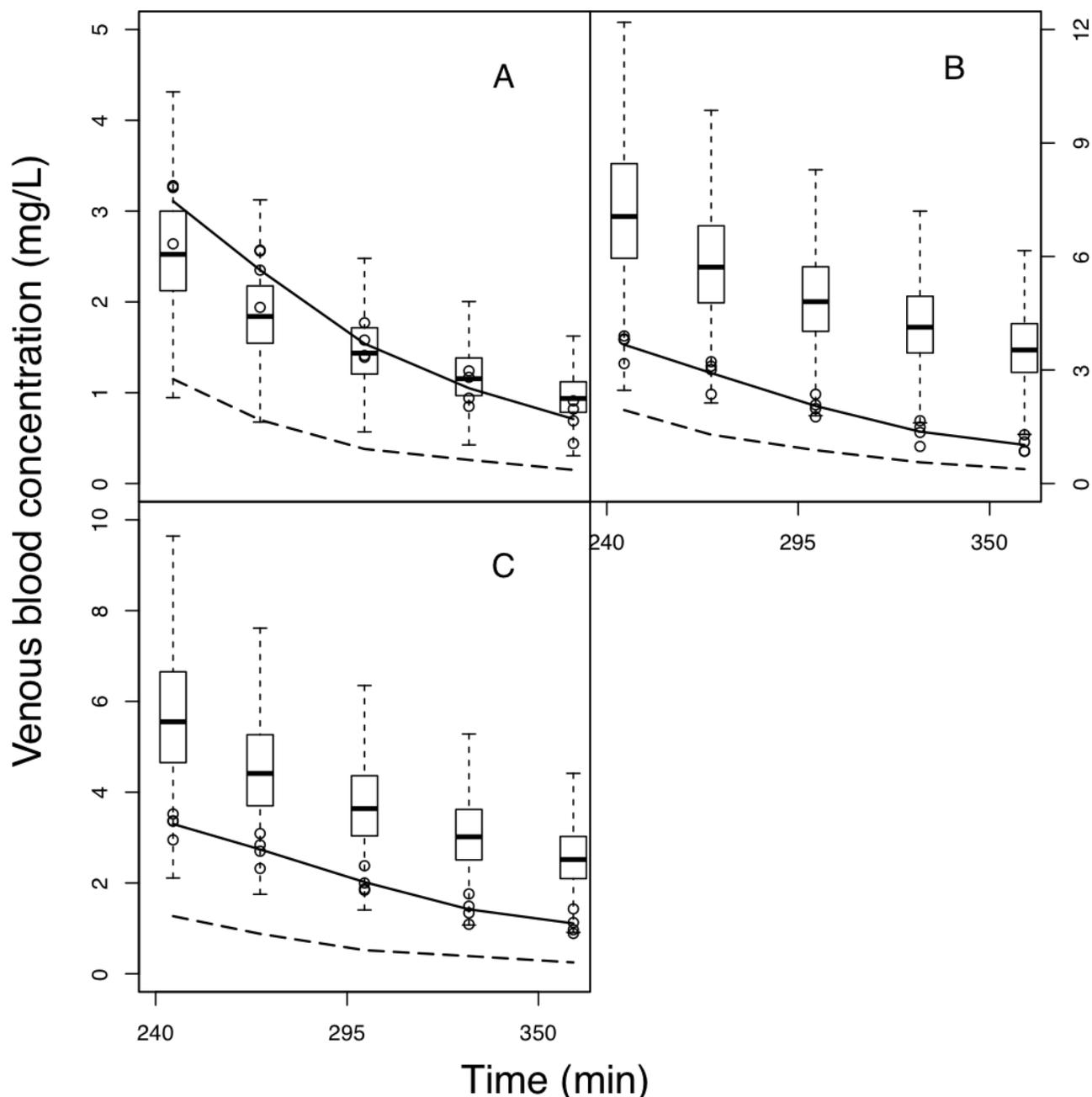
**Figure S4:** Global model II predictions - Blood kinetics of toluene (A), ethylbenzene (B) and *m*-xylene (C) after exposure to a ternary mixture of 100 ppm of each. The circles show the experimental data for four rats (Tardif, 1996) and the solid line gives their mean. The dashed lines show the blood kinetics of either T, E or X after single exposure to 100 ppm of the substance in the air. The box plots display the inter-quartile range of the type I global model predictions (without any fitting to the mixture data).



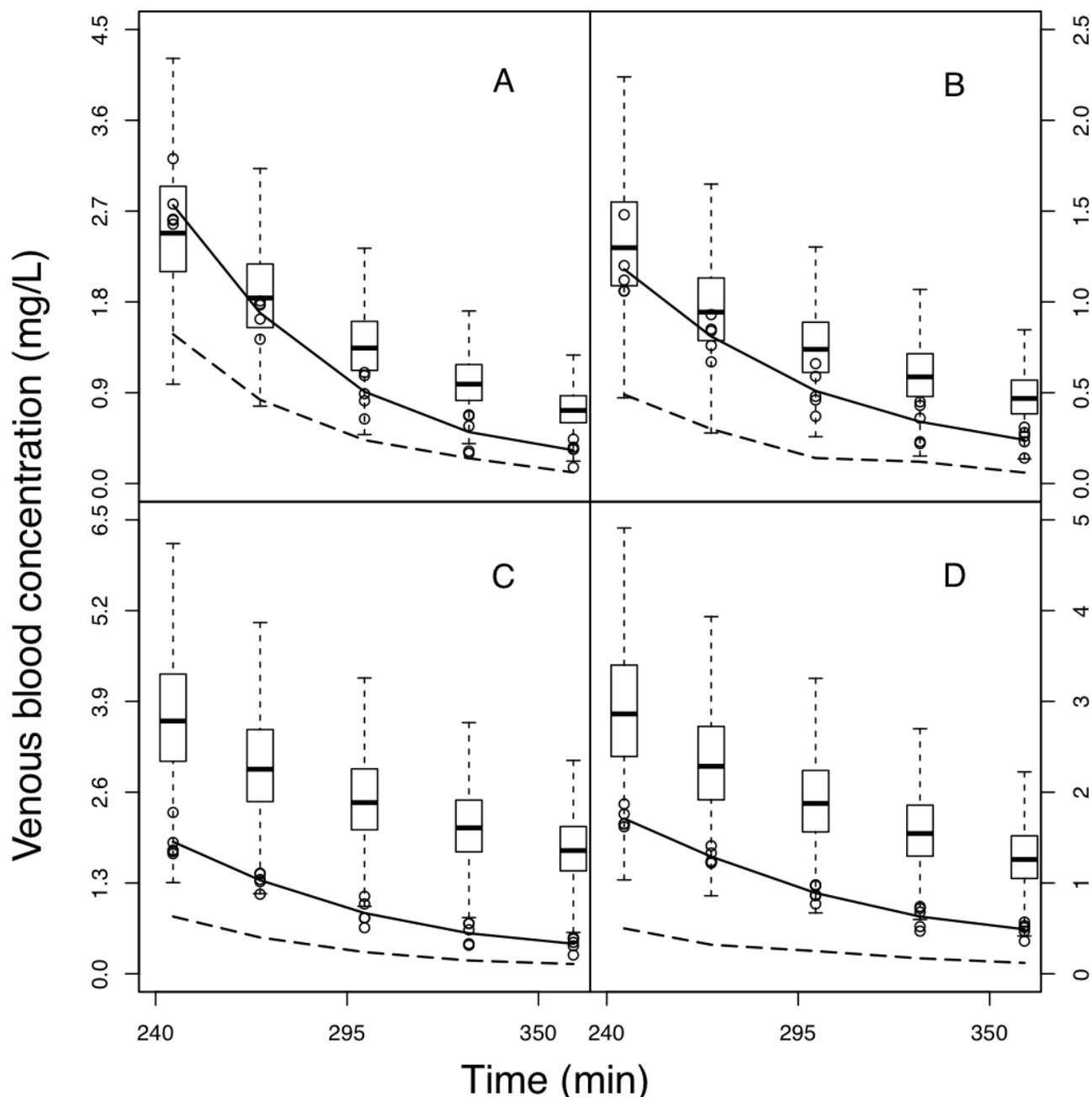
**Figure S5:** Global model II predictions - Blood kinetics of benzene (A), toluene (B), ethylbenzene (C) and *m*-xylene (D) after exposure to a quaternary mixture of 100 ppm of benzene and 50 ppm of each T, E and X. The circles show the experimental data for five rats (Haddad, 1999) and the solid line gives their mean. The box plots display the inter-quartile range of the type II global model predictions (without any fitting to the mixture data).



**Figure S6:** Global model III predictions - Blood kinetics of toluene (A) and *m*-xylene (B) after exposure to a binary mixture of 100 ppm of toluene and 200 ppm of *m*-xylene. The circles and solid lines show the mean experimental data for four rats (Tardif, 1996). The dashed lines show the blood kinetics of either toluene or *m*-xylene after single substance exposure to 100 ppm or 200 ppm in the air, respectively. The box plots display the inter-quartile range of the type I global model predictions (without any fitting to the mixture data).



**Figure S7:** Global model III predictions - Blood kinetics of toluene (A), ethylbenzene (B) and *m*-xylene (C) after exposure to a ternary mixture of 100 ppm of each. The circles show the experimental data for four rats (Tardif, 1996) and the solid line gives their mean. The dashed lines show the blood kinetics of either T, E or X after single exposure to 100 ppm of the substance in the air. The box plots display the inter-quartile range of the type I global model predictions (without any fitting to the mixture data).



**Figure S8:** Global model III predictions - Blood kinetics of benzene (A), toluene (B), ethylbenzene (C) and *m*-xylene (D) after exposure to a quaternary mixture of 100 ppm of benzene and 50 ppm of each T, E and X. The circles show the experimental data for five rats (Haddad, 1999) and the solid line gives their mean. The box plots display the inter-quartile range of the type II global model predictions (without any fitting to the mixture data).