SUPPLEMENTARY INFORMATION
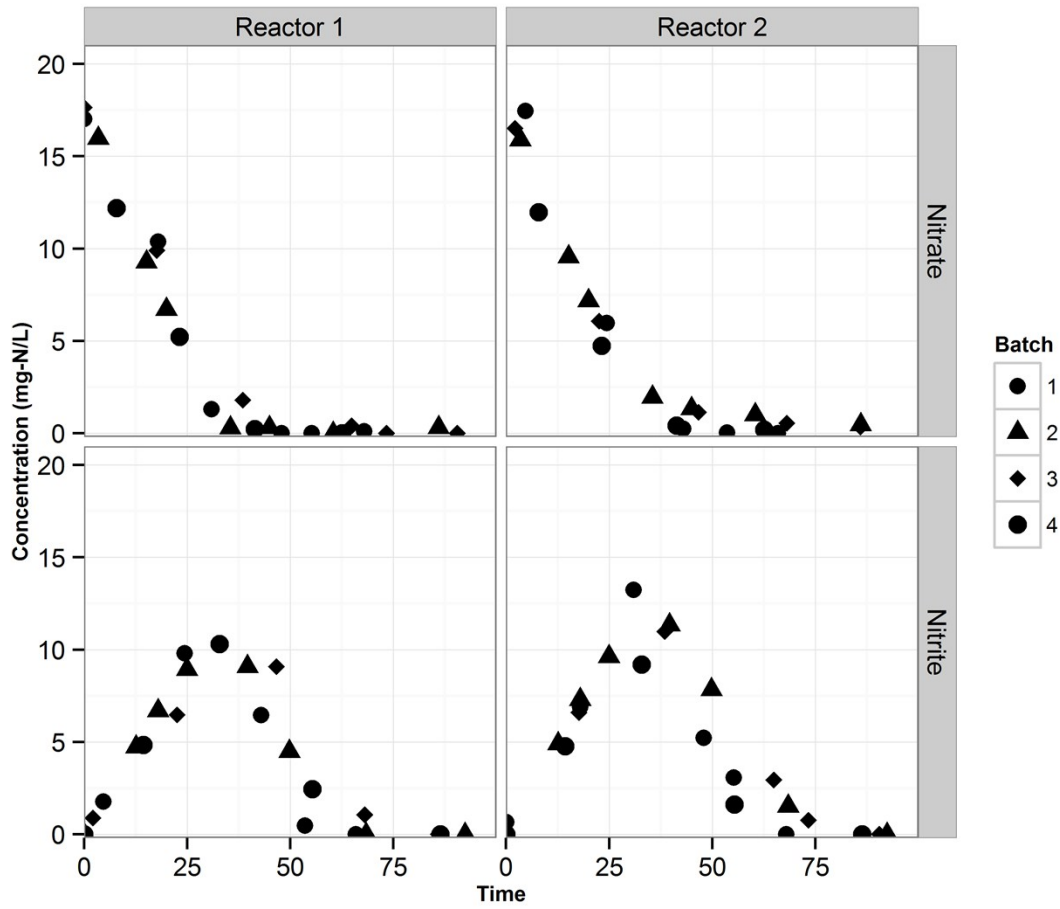

Figure S1:Batch Denitrification data during Steady State Operation for Reactor 1 and Reactor 2.
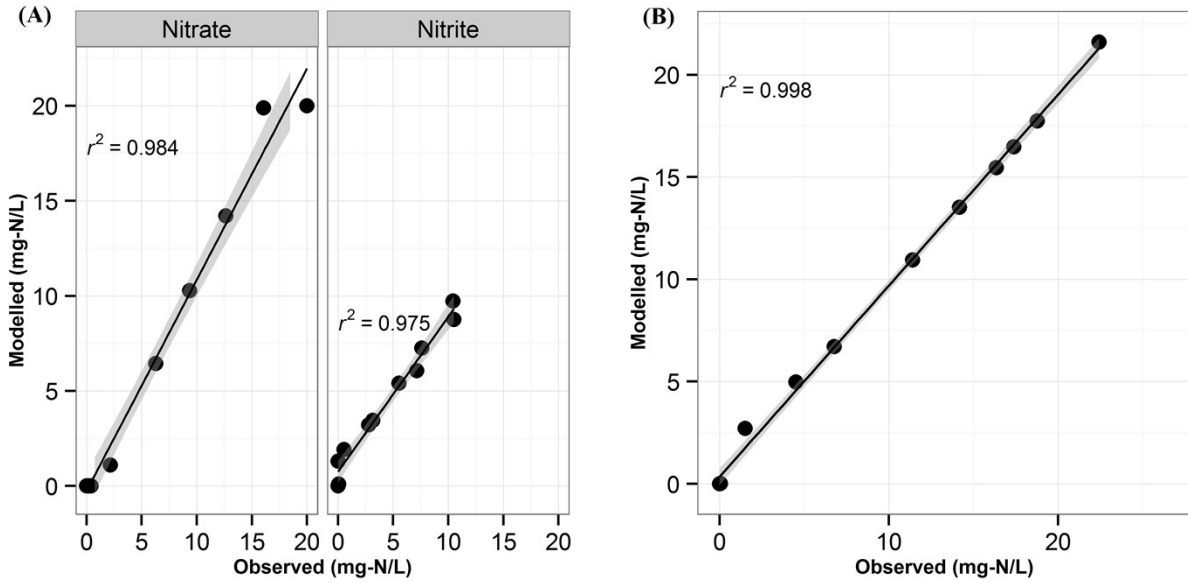
Figure S2: Modelled vs Observed Plots with R² values for Calibration Datasets (A) Typical Batch- 20 mg NO₃⁻.N/L (E2) (B) Nitrite-Only 30 mg NO₂⁻.N/L (E3). The shaded areas represent confidence intervals for the trendline.

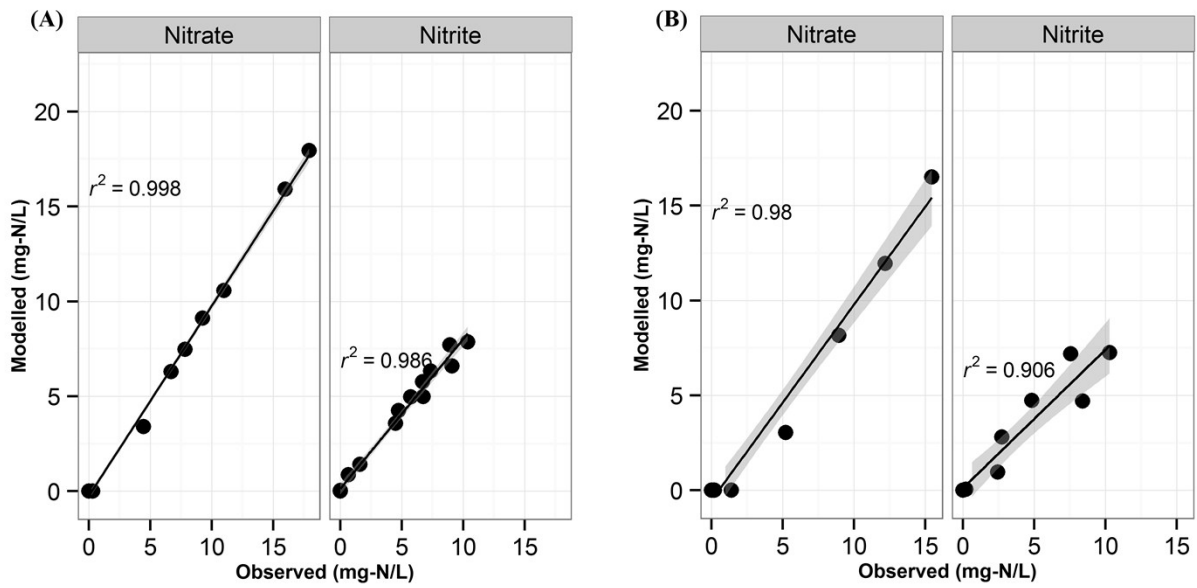*Figure S3: Modelled vs Observed Plots with R² values for Validation Datasets (A) MFC Reactor-1 (b) MFC Reactor-2. The shaded areas represent confidence intervals for the trendline.*
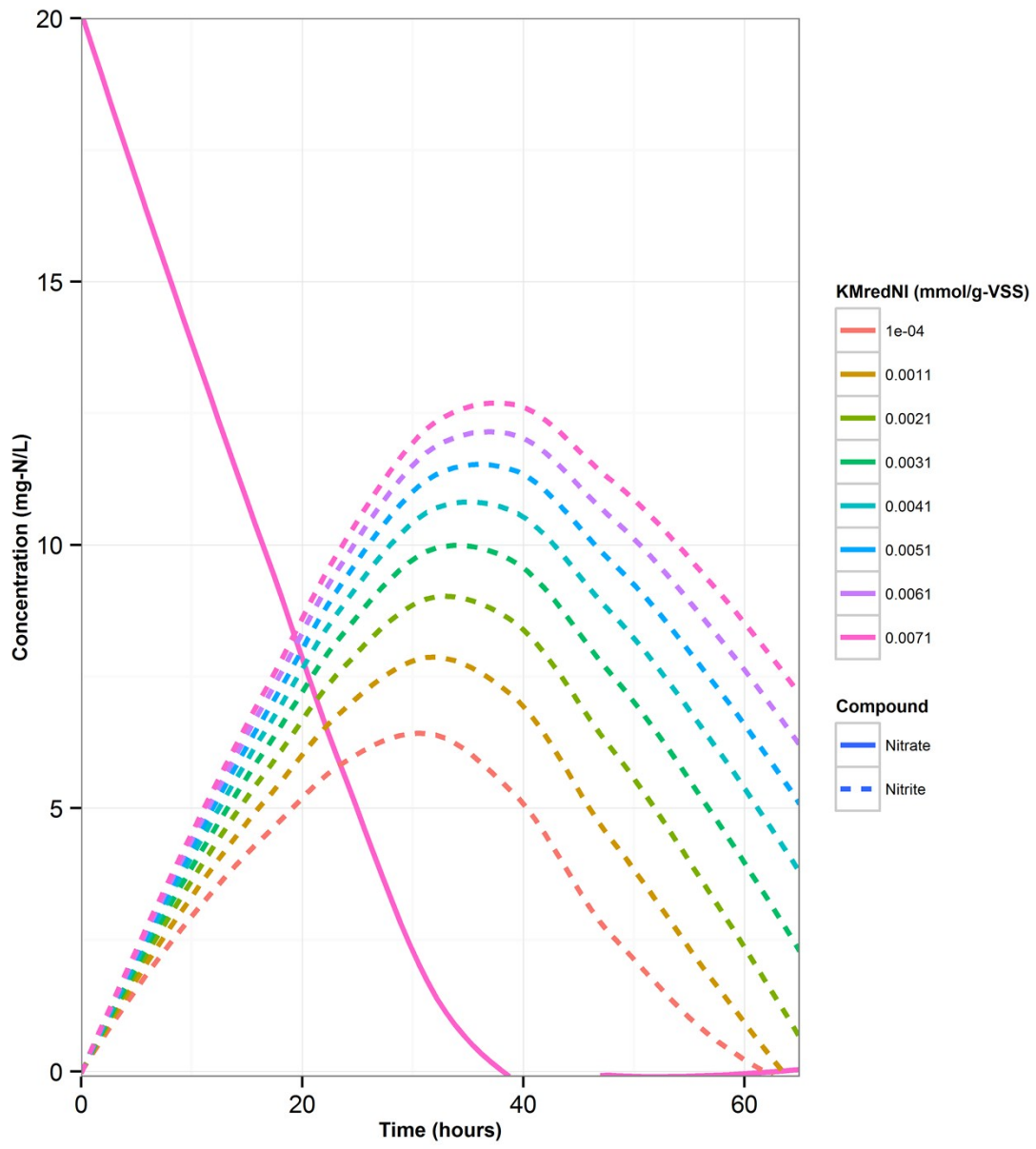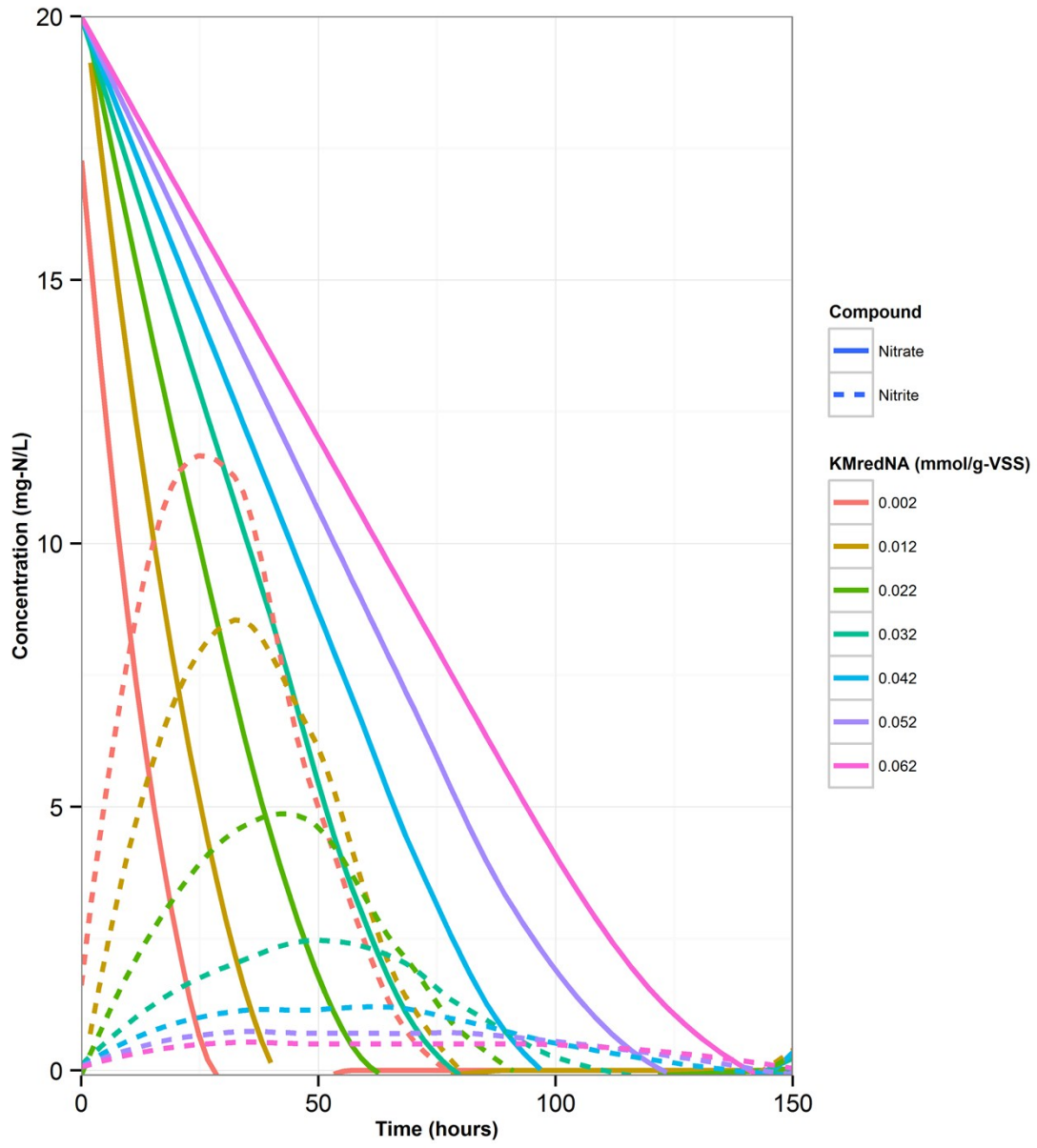
Figure S4: Sensitivity of the model to K_{mredNI}

Figure S5: Sensitivity of the model to K_{mredNA}