Appendix B: Errata

This appendix lists the errors found in publications I-VI.

Publication II

Figure 11 in publication II contains erroneous values of calculated Nernst voltage drop. The erroneous values and corrected values are shown Table B 1.

Table B 1. Erroneous ($E_{Nernst,err}$) and correct ($E_{Nernst,cor}$) values of calculated Nernst voltage drop in publication II.

$T_{dew,cat,in}$ [°C]	t_p [ms]	$\Delta E_{trigger}$ [mV]	$\Delta E_{Nernst,err}$ [mV]	$\Delta E_{Nernst,cor}$ [mV]
52	200	-3	-1.5	-1.5
52	200	-6	-2.8	-2.8
52	200	-9	-4.1	-4.1
52	400	-3	-1.7	-1.5
52	400	-6	-3.1	-3.8
52	400	-9	-4.2	-5.2
55	200	-3	-1.3	-1.3
55	400	-3	-1.7	-1.7
55	400	-6	-3.5	-3.5
55	400	-9	-4.3	-4.3
58	200	-3	-1.7	-1.7
58	400	-3	-1.6	-1.6

The error does not change the conclusions drawn since most erroneous values of calculated Nernst voltage drop deviated only little from the correct values. Figure 19 in Section 4.3.3 is plotted with the correct values.

Equation 6 in publication II is erroneous. The correct definition of the stack efficiency (η_s) reads:

$$\eta_s = \frac{2 \cdot F \cdot E_{cell,avg}}{\Delta H^0} \tag{B1}$$

The correct form of stack efficiency is also shown in Eq. 51 in Section 4.3.4. Stack efficiency in publication II was calculated with the correct equation despite the erroneous equation in the written text.

Publication III

Equation 3 in publication III is erroneous. It should show the approximation of time-averaged Sheerwood number instead of the approximation of instantaneous Sherwood number. The approximation of time-averaged Sheerwood number ($\overline{Sh}$) reads [71]:

$$\overline{Sh} = 4/\sqrt{\pi \cdot Fo} + \frac{63.237 \cdot \sqrt{Fo} + 71.892 \cdot Fo + \pi^2/1.5 \cdot 116.673 \cdot Fo^{1.5}}{1 + 33.616 \cdot \sqrt{Fo} + 45.628 \cdot Fo + 116.673 \cdot Fo^{1.5}} \quad \text{(B2)}$$

The correct form of time-averaged Sheerwood number approximation is also shown in Eq. 62 in Section 5.3. The bubble humidifier in publication III was simulated with the correct equation despite the erroneous equation in the written text.