Supporting Material to 'Voltammetry using multiple cycles: Porous electrodes'

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Figure S1: Fully-reversible asymmetrical voltammograms modelled for sweep rates of $\sigma = 10^{-5}$, 1, and 10^5 . Where applicable theoretical models are shown alongside the simulated data: Figure a) and c) plot the theoretical peak heights for one-dimensional systems evaluated with respect to the corresponding surface area.

Figure S2: Maximum currents observed in reversible asymmetrical voltammograms at different sweep repetitions and for various scan rates. Data is plotted alongside a dashed lines featuring slopes of 0.5 and 1 in the log-log plot. The three smaller plots at the bottom of the figure amplify various regions for clarity, where it is however not that the corresponding rectangles in the main plot solely indicate the respective region and are not plotted to scale.

Figure S3: Peak-to-peak separation ΔE_{pp} in reversible asymmetrical voltammograms for various scan rates as a function of the scan number. The indicated theoretical value depicts the result obtained from Equation (3).

Figure S4: Irreversible asymmetrical voltammograms modelled for sweep rates of $\sigma = 10^{-5}$, 0.1, 1, and 10^5 . For slow and fast scan rates it is plotted alongside the irreversible Randles-Ševčík equation subject to the corresponding surface area. It is however noted that for the slowest considered scan rate, the theoretical peak height is solely plotted for illustrative reasons as the electrode kinetics are not fully reversible and the peak height hence does not match the value it would reach in a one-dimensional system.

Figure S5: Maximum currents observed in irreversible asymmetrical voltammograms at different sweep repetitions and for various scan rates. Please compare Figure S2 for further details.

Figure S6: Peak-to-peak separation ΔE_{pp} in irreversible asymmetrical voltammograms for various scan rates as a function of the scan number. Please note that in case of peak splitting the highest peak is considered in the analysis.