Corrections to: "A Mathematical Theory for the Capillary Artificial Kidney"
(Hippokrates-Verlag, Stuttgart, W. Germany, 1974 - now out of print)

Page 11, line 11: "diffusivity or diffusion coefficient."

Page 17, line 12: $\beta_k \approx 4k - 4/3$

Page 27, bottom:

\[ f_4 = \ldots + 0.444444 x^2 10^{-2} \quad (82e) \]
\[ f_5 = \ldots + 0.0253702 x^3 - 0.111111 x^1 10^{-2} \quad (82f) \]

Page 28, (83):

\[ -p^4 (0.421880\cdot10^{-7} + w\cdot0.926930\cdot10^{-8}) + p^8 (0.566862 + w\cdot0.145445)10^{-5} - p^6 (0.450304\cdot w\cdot0.144043)10^{-3} + + p^4 (0.0182292\cdot w\cdot0.00792101) - p^2 (0.25\cdot w\cdot0.1875) + w = 0 \]

Page 28, line 15: \[ 0 \leq \rho_1 \leq 2.6974 \]

Page 28, line 14: \[ \rho_1 \rightarrow 2.7048 \]

(Note: with only terms up to $p^8$ in (83), $\rho_1 (w=\infty) = 2.70436$)

Page 29, Table 1: The approximation for $\rho_1$ is better written:

\[ \rho_1 \approx 4 \sqrt{\frac{w}{4+3w}} \]

Page 32, (91):

\[ \frac{3w}{\partial p} (-0.926930p^{10}10^{-8} + 0.145445p^{8}10^{-5} - 0.144043p^{6}10^{-3} + + 0.00792101p^{4} - 0.1875p^{2} + 1) = 0.421880p^{9}10^{-6} - 0.4534836p^{7}10^{-4} + + 0.2701824p^{5}10^{-2} - 0.0729168p^{3} + 0.5p + w(0.926930p^{9}10^{-7} - - 0.116356p^{7}10^{-4} + 0.864258p^{5}10^{-3} - 0.03168404p^{3} + 0.375p). \]

Chapter 16: "On the optimization of a capillary dialyzer" is based on a no more actual presumption. When the work was done in 1969-1970, there was a general hope that one would soon be able to operate hollow-fiber dialyzers without a blood-pump, due to the low pressure-drop. External shunts were still mostly used, so that one had a sufficient arterio-venous pressure difference available. With the spread of the internal shunt, the pressure difference is minimal also under dialysis treatment and operation without a blood-pump is impossible. Therefore quite different optimization criteria are valid, under those circumstances. I have worked out a complete, comprehensive and scientifically founded optimization process for this case. Brief details are available upon request, but full details are so far only given when I calculate dialyzers as consulting jobs.

Page 61, (237): $\rho_1$ instead of $\rho_k$

Page 61, (238): $\sim$ over $C_{\text{met}}$ is forgotten

Pages 62-63: The calculation of $\gamma_b$ has been carried out in the mean-time and is applied in the above mentioned optimization procedure.

Page 79, (A.54): 2.945 instead of 2.03