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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: $f_4 = \dots + 0.444444 x^8 10^{-2}$, (82e)

$f_5 = \dots + 0.0253702 x^8 - 0.111111 x^{10} 10^{-2}$, (82f)

Page 28, (83): $-p^{10}(0.421880 \cdot 10^{-7} + w \cdot 0.926930 \cdot 10^{-8}) + p^8(0.566862 +$
 $+ w \cdot 0.145445)10^{-5} - p^6(0.450304 + w \cdot 0.144043)10^{-3} +$
 $+ p^4(0.0182292 + w \cdot 0.00792101) - p^2(0.25 + w \cdot 0.1875) + w = 0$

Page 28, line 15⁻: $0 \leq p_1 \leq 2.6974$,

Page 28, line 14⁻: $p_1 \rightarrow 2.7048$

(Note: with only terms up to p^8 in (83), $p_1(w=\infty) = 2.70436$)

Page 29, Table 1: The approximation for p_1 is better written:

$$p_1 \approx 4 \sqrt{\frac{w}{4+3w}}$$

Page 32, (91): $\frac{\partial w}{\partial p}(-0.926930p^{10}10^{-8} + 0.145445p^810^{-5} - 0.144043p^610^{-3} +$
 $+ 0.00792101p^4 - 0.1875p^2 + 1) = 0.421880p^910^{-6} - 0.4534896p^710^{-4} +$
 $+ 0.2701824p^510^{-2} - 0.0729168p^3 + 0.5p + w(0.926930p^910^{-7} -$
 $- 0.116356p^710^{-4} + 0.864258p^510^{-3} - 0.03168404p^3 + 0.375p).$

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): p_1 instead of p_k

Page 61, (238): \sim over C_{m2t} is forgotten

Pages 62-63: The calculation of γ_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