
Chapter 2

P. 35  line 36  In prob. 1d, “…sensible heat flux, …” should be “…sensible heat flux density,…”.

P. 44  line 26  Change “…dependence (0.01%/C)…” to “…dependence (0.1%/C)…”.

Chapter 3

P. 47  Eq. 3.19  Units for r and q normally are kg/kg and C is mol/mol

P. 50  line 19  Change “…enough to be reside …” to “…enough to reside…”

Chapter 4

P. 55  Eq. 4.4  Change right hand side from “=a w–b” to “-a w–b”

Chapter 5

P. 70  Fig. 5.5  Add label to x-axis of graph – “ PAI “.

Chapter 6

P.77  line 24  Fick’s law …” should be “Ficks’ law…” (The reason for this is that there were two Fick brothers and both were involved in the discovery.)

P. 78  last 2 lines on page  Change “…dividing by c_p …” to “…dividing by \( \hat{\rho} c_p \) …”

P. 79  Eq. 6.8  Add “ ) “ so right term is “=c_r (T_s – T_a)/r_H

Chapter 7

P.87  line 15  “…return to Fick’s law…” should be “…return to Ficks’ law…”

P. 92  Example 7.3  Change the number 40x10^{-6} m^{-2} to 40x10^{-6} m^{-2}. in g_{vs} (adaxial)

P. 103  Eq. 7.30a  Since units of g_{Ha} usually are mol m^{-2} s^{-1}, the constant of 240 should be 0.240. The constant of 240 means g_{Ha} in this Eq. is in mmol m^{-2} s^{-1}.

Chapter 8

P. 118  Table 8.2  Quartz density=2.65, Quartz specific heat=0.74, Quartz heat capacity=1.97

P. 126  Eq. 8.21  Replace erf with erfc
And the sentence that follows should read “where erfc is the complimentary error function, a function …”

Chapter 9

P. 129 Eq. 9.1 All K’s should be \( K(\psi_m) \)

P. 130 Table 9.1 \( \theta_{1500} = 0.21 \) for silty clay loam (not 0.32)

P. 135 Example 9.1 Change “Solve Eq.(9.1) for \( \theta \)” to “Solve Eq.(9.3) for \( \theta \)”

P. 140 Eq. 9.16 Insert a minus so \( R_P = -\psi_{Lm}/E_{pmax} \)

P. 142 Eq. 9.21 All potentials are normalized so all \( \psi \)’s should be \( \psi^* \)’s.

P. 144 Rawls Ref. Van Genuchten name misspelled
Prob. 9b The reference to Eq.(9.10) should be Eq.(9.9)

Chapter 10

P. 147 line 5 \( c = 3 \times 10^8 \) m/s

P. 151 Ex. 10.1 \( \text{PPFD}=500 \ J/(m^2 \ s) \times 1/(2.17 \times 10^5 \ J) = 2.3 \ \text{mol}/(m^2 \ s) = 2300 \ \text{µmol}/(m^2 \ s) \)

P. 152 line 13 Change “…give…” to “…given…”.

P. 153 lin 15 Combine combinations should be spelled combinations

P. 159 Eq. 10.5 For more clarity, denominator should be \( \lambda^5 \) [exp(hc/(k\lambda T)) – 1]

P. 160 Fig. 10.4 Add units of W/m2/µm to right hand axis of graph

P. 163 Eq. 10.8 The “t” should be “\( T \)” indicating K temperature

P. 164 Eq. 10.11 The “\( T_a \)” should be “\( T_a \)” indicating K temperature

Chapter 11

P. 171 line 7 Replace “… Eq. (11.5) is set to 90°.” by “… Eq. (11.6) is set to 90°.”

P. 171 line 29 Converting to hours gives 128° x 1 hr/15° = 8.56 hrs. The time of first twilight is 11.87 -8.56 = 3.31 hrs (local time). The daylength is 2 x 8.56 = 17.1 hrs. The time of sunrise in PDT is 3.31 hrs + 1 hr = 4.31 hrs (PDT).

P. 181 line 6 \( F_d = F_a = (1 – \cos \gamma)/2 \)
Chapter 14

P. 244 line 6  Replace “… a little above 20°C at…” with “… a little below 20°C at …”


Chapter 15

P. 257 Eq.(15.10)  Replace \( \rho_{b,cpy}^* \) with \( \rho_{b,cpy}^*(\psi) \) so that
\[
\rho_{b,cpy} = \rho_{b,cpy}^*(\psi) - (\rho_{b,cpy}^*(\psi) - \rho_s) \exp(-2\sqrt{\alpha K_{bc}(\psi)L_t})
\]

P. 260 line 14  Example 15.2 total incident PAR above canopy should be \( Q_{ob} + Q_{od} = 2000 \mu\text{mol photons m}^{-2} \text{s}^{-1} \).

Example 15.2  At mid page the equation for \( \alpha \overline{Q}_{sh} = \ldots \) should be \( \alpha \overline{Q}_{sh} = \ldots \)
\[
\alpha \overline{Q}_{sh} = 0.8 (177 + 26) = 0.8 \times 203
\]
The two equations for \( \alpha \overline{Q}_{sl} = \ldots \) should be \( \alpha \overline{Q}_{sl} = \ldots \)
\[
\alpha \overline{Q}_{sl} = \alpha(K_{bc}(\psi) Q_{ob}) + \overline{Q}_{sh}
\]
and
\[
\alpha \overline{Q}_{sl} = 0.8(0.652 \times 1600 + 203) = 0.8 \times 1246
\]
This is because these equations are for the PAR absorbed.

P. 261 last 2 lines  Insert \( \alpha \) in front of \( \overline{Q}_{sl} \) and \( \overline{Q}_{sh} \) so that on page

The leaf assimilation rates can be obtained from Fig. 14.6 using \( \alpha \overline{Q}_{sh} \) for shaded leaves and \( \alpha \overline{Q}_{sl} \) for sunlit leaves.

P. 262 last Eq. on Page  Insert \( \alpha \) in front of \( Q, \overline{Q}_{sl} \) and \( \overline{Q}_{sh} \) so that
\[
\overline{Q} = \alpha \overline{Q}_{sl} L'_i + \alpha \overline{Q}_{sh}(L_i - L'_i) = \frac{997 \times 132 + 162 \times 168}{3.0}
\]

P. 279 Table A1  Column headed with \( \rho \) should be changed to \( \hat{\rho} \).

P. 281 Table A3(continued)  Units of slope of saturation vapor pressure versus temperature (triangle symbol at column head) should be \( \text{Pa°C}^{-1} \) as in Table A3 on page 280.

P. 281 Table A5  Units on Gas constant should be \( \text{J mol}^{-1} \text{K}^{-1} \)
Units on Boltzmann constant should be \( \text{J K}^{-1} \)
Units on Stefan-Boltzman constant should be \( \text{W m}^{-2} \text{K}^{-4} \)

P. 284 line 5  “Flick’s diffusion law” should be “Ficks’ diffusion law”