CHAPTER 1

p. 9 Example 1.1, 2nd line change “Show that relatively” to “Show that a relatively”
Example 1.1, eq. 1-23, change “0.228” to “0.0228”
p. 6 Eq. 1-6, replace “mass fraction” with “mole fraction” in each of the three lines.
Eq. 1-6, replace “species C” with “species i” in each of the three lines. [Note that i is italicized]
Eq. 1-9 are mass fractions. Replace word “mole” with “mass” in each of the three lines.
p. 9 Table 1.4, mass fraction definition, the mole fractions should be multiplied by M, so remove all “/”, to read:
\[ \Phi_i = \frac{y_i M_i}{y_i M_i + y_j M_j + \ldots + y_n M_n} \]
p. 10 Line below eq. 1-24, change “concentration or air” to “concentration of air”.
p. 18 First line below eq. 1-62, change subscript from “f” to “0” and from “o” to “0”, so it reads: \( (V_o - V_f)/V_0 \).

CHAPTER 2

p. 26 3rd paragraph, first line, change “qualitatively to” to “to qualitatively”.
p. 30 Item 2 (of the 5 tabulated items), change “are unity” to “are constant”.
p. 31 Eq. 2-16, change the first letter u to be the greek letter mu, change “u_{i\infty}” to “\( \mu_{i\infty} \)”
Line above eq. 2-20, change from “Eq. 2-19 as” to “Eq. 2-18 as”.
p. 32 Eq 2-26, change “-.94.23” to “-.94.26”
eq 2-27, change “-.98.32” to “-.98.35”
p. 34 Second line of example 2.2, change “at an acetate” to “an acetate”.
p. 44 Eq. 2-89, change subscripts C to M, so it reads

\[ \rho_{nw} = \frac{c \cdot M_M}{M_{nw} \cdot P_M} \]

Line below 2-89, change subscripts on \( \gamma \) and \( \rho \) from \( C \) to \( M \), so they read “\( \gamma_{nw} \)” and “\( \rho_{nw} \)”.
Eq. 2-90, change \( \rho \) subscript from \( a \) to \( D \), so change \( \rho_{nw} \)” to “\( \rho_{nw} \)” and “\( \rho_{nw} \)” to “\( \rho_{nw} \)”
p. 53 Problem 2.3, line 4, omit words “units missing”.
Problem 2.3, line change “5 mg humics/L” to “5 mg humics/L-soil”.
Problem 2.3, line 6, change subscript on \( M \) from \( a \) to \( D \), so change “\( M_a \)” to “\( M_D \)”.
P. 56 Problem 2.15, line 7, change \( c \) in subscript of \( H \) to \( c \), or “\( H_{tie} \)” to “\( H_{tie} \)”.

CHAPTER 3

p. 61 eq. 3.7, include power of 1/3 in \( V \) term, so it reads \( V_{\nu}^{1/3} \)
p. 62 Two lines above eq. 3-10, change “With a gas” to “When a gas”.
p. 63 Three lines above Eq. 3.1, change the “+ to a times sign, so change \( \Phi \) to “\( \Phi \)”
Eq. 3-16, subscript “Ag” should be “Ma”, so change “\( D_{Ag} \)” to “\( D_{Ma} \)”
p. 66 First line, change “equation, or” to “equation, or”
First line below eq. 3-27, change subscript on \( D \) from \( w \) to letter \( I \), so it reads \( D_{\nu} \). Similarly change the subscript on \( \mu \) from \( w \) to letter \( I \), so it reads \( \mu_{\nu} \)
Table 3.3 in column heading, for \( \Phi \) the subscript 4 should be the letter \( l \), so change \( \Phi_4 \) to \( \Phi_l \)

p. 67 Table 3.4, two column headings: delete the dash between \( g \) and \( mol \) so it reads cm\(^3\) g-mol\(^{-1}\)
p. 69 Example 3.2, line 8 change “\( H (6\times3.7) \)” to “\( H (12\times3.7) \)”
p. 70 Eq. 3-40, the answer needs a factor of 10\(^8\), so it reads 920 \times 10\(^8\) cm\(^2\) s\(^{-1}\).
p. 76 Eq. 3-54, change subscripts in two places from “\( D_{nw} \)” to “\( Cw \)”.
p. 82 3rd line below eq. 3-67, change \( A \) to \( C \), or change “\( y_{j,\nu} \)” and “\( y_{j,\nu} \)” to “\( y_{C_{j,\nu}} \)” and “\( y_{C_{j,\nu}} \)”
3rd line below eq. 3-67, change \( A \) to \( C \), or change “\( A \) in the gas” to “\( C \) in the gas”.
p. 85 2nd line below eq. 3-78, equation numbers are wrong, so change “3-54 - 3-56” to “3-74 - 3-56”.
p. 92 Line above eq 3-89, change “\( L/D_{\nu} \)” to “\( L/\nu \)”.
p. 100 5th line after eq. 3-98, the apostrophe is missing, so change “\( c_{g,\nu} \)” to “\( c_{g,\nu} \)”
p. 105 Problem 3.8, line 6, change “(a) What would concen-” to “(a) What concen-”
P. 108  Problem 3.15, line 1, change “, and perchloroethylene (PCE)” to “ or perchloroethylene (PCE),”

CHAPTER 4
p. 112  Figure 4.1, the bottom axis labeled “Z” should be “X”, and the vertical axis labelled “X” should be “Z”
p. 113  Second line below eq. 4-4, change “of one of surfaces” to “of one of the surfaces”.
The subscripts on \( \omega \) in equation 4-5 contain errors. The equation should be:
\[
\text{Surface Forces in} = (\sigma_{xx} l_x + \sigma_{xy} l_y + \sigma_{xz} l_x y)\Delta y + (\sigma_{yx} l_x + \sigma_{yy} l_y + \sigma_{yz} l_y y)\Delta x \Delta x + (\sigma_{zx} l_z x + \sigma_{zy} l_y x)\Delta y
\]
p. 114  5th line below 4.3 heading, change “heat transport is considered” to “heat transport is not considered”.Line below eq. 4-8, change “derivative” to “derivative”.
p. 115  Eq. 4-16, change \( \Delta p \) to \( \nabla p \)
p. 116  Eq. 4-47, all the letter “C”s should be capitalized, i.e. “\( c_{cm} \)” should be “\( C_{cm} \)”, etc. (total of 5 places).
p. 121  Eq. 4-52 and eq. 4-53, all text in between equations, make all the letters \( u \) a bold \( u \) (but do not bold subscripts)
p. 124  Eq. 4-64, change “\( A \)” to “\( C \)” in the subscripts (change a total of 3 times in the equation).
The signs equation 4-65 are wrong, and \( =0 \) is missing. Change the equation as indicated below
\[
\frac{\partial e_{c}}{\partial t} + \mathbf{u} \cdot \nabla e_{c} - D_{c} \nabla^{2} e_{c} - R_{c} = 0
\]

CHAPTER 5
p. 132  In Eq. 5-4, change the partials to \( d \), so it reads:
\[
\frac{d}{d x} (\mathbf{u} \cdot \mathbf{c}_{c}) = \frac{d}{d x} \left( D_{c} \frac{\partial c_{c}}{\partial x} \right)
\]
p. 133  In eq. 5-5, the \( \nabla \) term should not be there, so change the equation to read:
\[
\mathbf{h}_{1} = -D_{c} \frac{\partial c_{c}}{\partial x} + \mathbf{u} \cdot \mathbf{c}_{c}
\]
Eq. 5-9, change \( C \) to lower case \( c \) in the derivative term, so change “\( dC \)” to “\( dc \)”.
p. 134  First line below eq. 5-12, change “0.1 cm²” to “0.01 cm²”.
P. 135  Eq. 5-21, Change the letters “\( N \)” to “\( J \)” (two changes in this equation)
The two lines above eq. 5-23, eq. 5-23 itself, and the line below eq. 5-23, need to be completely replaced with the following:
“Under steady conditions, \( dJ_{Ca,z}/dz=0 \), or \( J_{Ca,z} \) is a constant. Using Eq. 5-10 for the flux, with \( c_{Ca}=y_{C}c_{e} \), we can write
\[
\frac{dJ_{Ca,z}}{dz} = \frac{d}{dz} \left( \frac{D_{Ca} c_{a,z} \frac{\partial y_{C}}{\partial z}}{1-y_{C}} \right) = 0 \quad (5-23)
\]
Integrating twice, we obtain the general solution”
p. 136  First Line below eq. 5-30 and second line below (2 changes), change “Eq. 5-39” to “Eq. 5-30”
Eq. 5-31, the subscript on \( c \) should be \( a \) not the number 1, so change “\( c_{1} \)” in the denominator to “\( c_{a} \)”. Also, change \( \Delta \) in subscript of \( y \) to \( C \), so change “\( y_{a,z} \)” to “\( y_{C,a,z} \)”.
p. 137  First line, change “systems” to “system”.
p. 138  Line 4, add a superscript / to the \( z \) term, so it reads \( z/z_{i} \)
p. 141  Eq. 5-53, change \( \frac{\partial z}{\partial x} \) to \( \frac{\partial y}{\partial x} \)
p. 142  Eq. 5-63, change the “\( C_{w,eqw} \)” subscript to “\( C_{w,eq} \)”.
Eq. 5-64, change \( \frac{\partial C_{w}}{\partial x} \) to \( \frac{\partial C_{w}}{\partial z} \)
p. 146  6th line down from top of page, change “down the along” to “down along”
p. 148  Eq. 5-87, the denominator on the last term should be \( x \), not \( z \), so change \( \frac{\partial c_{Ca}}{\partial x^2} \) to be \( \frac{\partial c_{Ca}}{\partial x^2} \)
Second line below eq. 5-87, change the \( z \) and \( x \) letters, so it reads “of the \( x \) direction and one as a function of \( z \)”.
p. 156  Eq. 5-141, second line, first right-most term, there is an extra “\( r \)”, so change “\( r \frac{\partial c}{\partial r} \)” to “\( r \frac{\partial c}{\partial r} \)”.
p. 158  2nd line after eq. 5-136, change “production” to “product”
p. 159 Eq. 5-142, second line, (i) change “D” to “D”, (ii) the second term in the numerator has an extra “r”, so change “r \frac{dc}{dr} r” to “r \frac{dc}{dr}” and (iii) the k is missing the subscript 1, so change “kc” to “k,c”.

Eq. 5-144, the signs for the second and third term need to be switched, producing \[ \frac{d^2c}{dr^2} + \frac{1}{r} \frac{dc}{dr} - \frac{k_1}{D} c = 0 \]

2nd line after eq. 5-147, change reference from “Eq. 5-135” to “Eq. 5-145”.

p. 160 Eq 5-149, the two k terms are missing the subscript number 1, so change them from “k” to “k_1”.

CHAPTER 6

p. 165 In both eqs. 6-1 and 6-2, the letter J should not be bold.

p. 166 First line of section 6.2, change “In section 5.3” to “In section 5.2”.

p. 166 Last paragraph, fourth line, change “two liquid phases” to “two phases”.

p. 169 Eq. 6-9, change A in subscript to C, or “D_{sw}” to “D_{sw}”.

p. 170 In line 4 and line 7, change “1/3” to “2/3”.

p. 170 Last 2 lines of text on the page, change “that the predictions of the stagnant film theory do not” to “that stagnant film theory does not”

p. 171 Line 5, change “chemical flux is predicted” to “chemical flux predicted”

Line 8, powers of D are wrong. Change from “D_{sw}^{1/2}” and not “D_{sw}^{1/2}” to “D_{sw}^{1/2}” and not “D_{sw}^{1/2}”

p. 173 1st line after Eq. 6-31, change ”Eq. 6-21” to ”Eq. 6-20”

p. 175 Line above eq. 6-30, change “Eq. 6-28” to “Eq. 6-29”.

Line above eq. 6-31, change “Eq. 6-29” to “Eq. 6-30”.

p. 176 Eq. 6-35, change from italicized font to normal font, bold letter k, so change “k_k” to “k_k”

p. 178 Eq. 6-48, the = sign should be a minus sign, so change the first term (y_{c_\text{e}} - y_{c_i}) to (y_{c_\text{e}} - y_{c_i})

p. 179 Eq. 6-50, change小于 H from “<” to “<”, so change “<H_{\text{e}}” to “<H_{\text{e}}”

p. 182 Eq. 6-62, the exponent should be 1/3 not 2/3, so the term reads Pe^{1/3}.

p. 184 6 lines below Eq. 6-73, change “organic solutes in water a” to “organic solutes in water a”.

Third line below Eq. 6-75, a is missing a subscript w, so change “J_w a” to “J_w a”.

p. 188 Third line from bottom of equation, change “Equation 6-94” to “Equation 6-96”.

Second line from bottom, delete “is” (the last word of the line).

p. 189 In first line, change “factor in Eq. 6-90” to “factor in Eq. 6-96”.

CHAPTER 7

p. 193 Second paragraph, first line, change “energy inputs” to “energy input”.

p. 196 4 lines below Eq. 7-7, change “likely to be range” to “likely to be a range”.

p. 199 Eq. 7-12, change the minus sign to a plus sign.

p. 201 Line below 7-22, change “expected for” to “as expected for”.

p. 204 Line above Figure 7.5, change “Eq. 7-14” to “Eq. 7-15”.

p. 205 2nd line after eq. 7-31, change from “Eq. 7-4” to “Eq. 7-6”.

p. 205 Eq. 7-26, change “b_D” to “b_{wp}” in numerator, and “2” to “2” in denominator.

p. 206 First line, change from “Eq. 7-14” to “Eq. 7-32”.

p. 207 Example 7.2, line 4, change “7.6:3.3” to “7.6:2.3”

p. 207 First line, change “Eq. 7-36” to “Eq. 7-37”.

p. 207 Example 7.2, line 4, change “7.6:3.3” to “7.6:2.3”

p. 207 First line, change “Eq. 7-36” to “Eq. 7-37”.

p. 207 Eq. 7-41, delete term “(1.0 g cm^{-3})” from numerator, and put a power 3 on the rps term so it reads “(100 g cm^{-3})^3”.

p. 209 Second line, change “7-48” to “7-51”

p. 210 Line of example, change reference from “using Eq. 7-36” to “using Eq. 7-37”.

p. 210 Line above equation 7-65, change “500 ml” to “500 mL”.

p. 215 Line 7 of section 2.5, change “order efficiently to” to “order to efficiently”.

p. 215 Example 7.2, line 4, change “7.6:3.3” to “7.6:2.3”

p. 215 Second line, change “7-48” to “7-51”

Eq. 7-52, the term “(1 min/60 s)” is missing, so change to: \[
\left( \frac{1L/min}{10 cm^3} \right) \left( \frac{981 cm/s}{1 m/s} \right) \left( \frac{1 min/60 s}{1 s} \right) \]

p. 214 Line 6 of example, change reference from “using Eq. 7-36” to “using Eq. 7-37”.

p. 214 Line above equation 7-65, change “500 ml” to “500 mL”.

p. 215 Line 7 of section 2.5, change “order efficiently to” to “order to efficiently”.
p. 217  Line below eq. 7-69, change “from Eq. 7-17” to “from Eq. 7-7”.
p. 219  Change Example number from 7.4 to 7.5
p. 223.  Eq. 7-90.  The subscript on Q should be the letter “a” not “O”, so change “QO” to “Qa”; and there should not be a number 2 in the denominator, which should just read “\( \frac{1}{\theta} \)”.
p. 224  Two lines above equation 7-96, change the word “diameter” to “radius”.  
Eq. 7-93, change the “\( u \)” to “\( U \)”.
p. 225  Lines 3 and 4 reverse order of subscript on K (two places) from \( \text{aw} \) to \( \text{wa} \), or “\( K_{\text{aw}} \)” to “\( K_{\text{wa}} \)”.
Line above Fig. 7-12, change “Eq. 7-88” to “Eq. 7-98”.
p. 226  3rd line after eq. 7-100, minus sign is missing, so change “\( (K_{\text{wa}}) \)” to “\( -(K_{\text{wa}}) \)”.

**CHAPTER 8**
p. 232  Eq. 8-3, change subscript on \( K \) is \( \text{MM} \) but should be \( mm \), so change “\( K_{\text{MM}} \)” to “\( K_{\text{mm}} \)”.
p. 233  Eq. 8-9, the letter \( f \) in the equation should have a subscript \( a \), so change “\( f \)” to “\( F \)”.
p. 238  Eq. 8-19, the = sign is missing before \( \text{Sh}_a \). The last two terms should be \( \frac{\text{Sh}_a}{\text{Sh}_b = 1} = \text{Sh}_a \).
p. 239  Line 8, change “BSA is soluble” to “BSA is a soluble”.
p. 241  Third line below “Transport by Diffusion” section, change reference from “Fig. 7.13” to “Fig. 7.11”.
p. 242  Eq. 8-23 should read: 
\[
R_{c} \frac{V}{V_{b}} = R_{c} A \pi r^{2} \Delta r \theta
\]
Eq. 8-24, the equation is missing a term “\( r^{2m} \)” on the left side, and should therefore read:
\[
D_{c} \left( \frac{d}{dr} \right) \frac{r^{2} \Delta \theta}{\Delta r} - D_{c} \left( \frac{d}{dr} \right) \frac{r^{2} \Delta \theta}{\Delta r} = 0
\]
p. 243  Eq. 8-30, there is a plus sign and a term R is missing, so the equation should read
\[
\alpha(r) = \alpha_{s} + \frac{K_{D} X}{6 D_{c}} (r^{2} - r^{2})
\]
p. 244  Eq. 8-31, the first term is inverted, and the subscript on the first \( c \) should be \( s \), and so the equation should read
\[
R = \left[ \frac{6 D_{c} \alpha_{s} X}{K_{D}} (\alpha_{s} - \alpha_{c}) \right]^{1/2}
\]
p. 245  Eq. 8-47 the subscript on \( u \) should be \( \text{ag} \) not \( \text{f} \), so change “\( u_{f} \)” to “\( u_{\text{ag}} \)”.
Second line from bottom, again change “\( u_{f} \)” to “\( u_{\text{ag}} \)”.
p. 247  Line above Eq. 8-58, change “Cozeny-Karmen” to “Kozeny-Carmen”.
p. 251  Eq. 8-67, the squared term is incorrect: change it from (1-\( \theta \))^{2} to (1-\( \theta \)).
p. 254  3rd Paragraph, 4 lines down, change “made using assuming” to “made using”.
2nd line after Eq. 8-76, change “Eq. 8-65” to “Eq. 8-76”.
Last line of page, change “Eq. 8-64 and Eq. 8-66” to “Eq. 8-75 and Eq. 8-77”.
p. 256  Eq. 8-84, omit the subscript from \( f \), so change “\( f \)” to “\( f \)”.
p. 257  Line 4, change subscript on \( b \) from \( 1 \) to \( 2 \), so change “\( b_{1} \)” to “\( b_{2} \)”.
Eq. 8-88, change “\( b_{1} \)” to “\( b_{2} \)”.
First line after Eq. 8-88, change “\( b_{1} \)” to “\( b_{2} \)”.
Eq. 8-89, change “\( b_{2} \)” to “\( b_{1} \)”.
First line after Eq. 8-89, change change “\( b_{2} \)” to “\( b_{1} \)”.
Eq. 8-90, change “\( b_{1} \)” to “\( b_{2} \)”.
Eq. 8-92, change in numerator “\( dC \)” to “\( dc \)”.
p. 259  Eq. 8-102, the subscript on \( \eta \) should be “\( a \)” not “\( d \)”, so change \( \eta_{a} \) to \( \eta_{s} \).

**CHAPTER 9**
p. 264  Second paragraph, Line 3, change “trickling” to “trickling”.
p. 267  Eq. 9-17, first Sc term should be raised to “-1/3” not “1/3” power, so change “\( \text{Sc}^{1/3} \)” to “\( \text{Sc}^{-1/3} \)”.
p. 270  Eq. 9-24, the denominator on the last term should be \( x \), not \( z \), so change \( \frac{\partial^{2} c_{\text{os}}}{\partial x^{2}} \) to be \( \frac{\partial^{2} c_{\text{os}}}{\partial x^{2}} \).
p. 271  Eq. 9-31, change sign from + to - before term, so it reads “\( -R_{c} \Delta \theta = 0 \)”.
p. 272  Line 1. Change A\( \delta \) to A\( \delta \).
Eq. 9-35, omit \( C \) from subscript on \( r \) term, so change “\( R_{c} \)” to “\( R_{\eta} \)”.


p. 277  Line after eq. 9-66, change subscript from “b” to zero, so change “cCw,b” to “cCw,0”.
First line after eq. 9-70, change “incompletely penetrated” to “completely penetrated”.
p. 279  This is a sign missing, so change $R_{in}$ to $R_{in}$.  
Eq. 9-85, remove the negative sign.
Eqs. 9-89, 9-90, 9-91, change subscript on Y from $X/S$ to $X/c$, so change “$Y_{X/S}$” to “$Y_{X/c}$”.
p. 281  Eq. 9-93, change subscript on Y from $X/S$ to $X/c$, so change “$Y_{X/S}$” to “$Y_{X/c}$”.
p. 282  3 lines after Eq. 9-99, change subscript from $s$ to $b$, so change “$s^*$” to “$s^*_b$”.  Six lines above eq. 9-101, the two $\delta$ terms are missing the *.  Change them both to be $\delta^*_b$.
p. 286  Eq. 9-121, add subscript “end” to b term, so the last term reads: 
Eq. 9-122, the second term is incorrect.  The whole equation should be:
\[
\frac{\partial \tilde{b}_b^*}{\partial t} = \frac{\mu_{a,b} Y_{X/c} f'}{b_{end}} - \delta^*_b 
\]
p. 294  5 lines after equation 9-142, the + should not be a superscript: change “time $t'\Delta t$” to “time $t + \Delta t$”
p. 325  Eq. 9-212, the exponent of 3 should be 1/3 not 1/2, so change “3^{1/2n}” to “3^{1/3n}”.
p. 328  Problem 9.3, part c, add to end of sentence “assuming an influent sBOD of 100 mg/L”
p. 330  Problem 9.11, part b change “glucose” to “glucose”.
p. 331  Problem 9.14, Line 2, change “Eq. 9-77” to “Eq. 9-76”.


CHAPTER 10
p. 338  Eq. 10-15, there should be an = sign before the first (D term and the last term should really be two terms separated by a + sign.  The last two terms should be 
\[
(D + q_d) \frac{\partial Y}{\partial x^2} + (D + q_d) \frac{\partial Y}{\partial y^2} 
\]
p. 343  Eq. 10-33, denominator should be $c\lambda$ not $c\lambda$.
p. 346  Change the term in the denominator from “$4^{2n}$” to “$2^{2n}$”.
p. 350  Figure 10.7 part (B) needs to be redrawn to show a velocity term to the left on the top (see page).
p. 352  Third line below eq. 10-71, change “chemical so that” to chemical, so that”.
p. 358  Line below eq. 10-94, change “$-0.40$” to “$-0.4085$”.
Eq. 10-95, change “0.593” to “5.93”
p. 366  Table 10.1.  Replace $K_L$ with $E_i$ in the Table caption and in the column heading.

CHAPTER 11
p. 378  Second paragraph, line 10, change “$4Et$” to “$32Et$”.
p. 380  Eqs 11-9, Change $\frac{\partial Y}{\partial x^2}$ to $\frac{\partial Y}{\partial c}$ in two places where it appears in this equation.
p. 386  Eq. 11-23, in the denominator should be squared, so change “w” to “w$^2$”.
p. 402  Eq. 11-62, change the denominator of the m term from “$C$” to “$C,d$”, so change $m^{23}_C$ to $m^{23}_{C,d}$.
p. 403  Paragraph after Eq. 11-66, change (two times) the reference of Eq. 11-59 to Eq. 11-66.
p. 406  Line 3, change “weight from 4 to 35 or more” to “weight from molecules containing 4 carbons to those containing 35 carbons.”
p. 406  Paragraph 3, line 8, change “boilng” to “boiling”

CHAPTER 12
p. 414  2nd line after eq. 12-5, remove minus sign, so change “[L$^{-2}$]” to “[L$^2$]”.
Third line below eq. 12-5, remove minus sign from 10 power, so change “10$^{-8}$” to “10$^{-6}$”.
In eq. 12-6, change $\Delta h$ to be $\Delta l$, and include 2 negative signs so the equation reads:
\[
\kappa = \frac{-\partial q}{\partial p} = \left( \frac{1 \text{ cm}^2}{1 \text{ atm} \text{ cm}^{-1}} \right) \frac{1}{\left( -1 \text{ atm cm}^{-1} \right)} = 1 \text{ darcy} 
\]
p. 415  Section 12.3, line 2.  Change “In that section” to “In this section”, and then in the next line, change the words “derived” and “presented” to “derive” and “present”.
p. 417  - Eq. 12-18 change c($\xi$) to c($\xi$) in the numerator of the first term.
- Example 12.1, line 7, the exponent should be -4 not -6: change $6 \times 10^{-6}$ to $6 \times 10^{-4}$
p. 420  First line after eq. 12-35, change “L’Hospital’s” to “L’Hopital’s”.
p. 424  line above eq. 12-57, change end of sentence from “one column, or” to “one column pore volume, or”
p. 427 Caption to Figure 12.6, line 4, change “phyenyl” to “phenyl”. Also, there seems to be a font size change between lines 3 and 4.

p. 447 Second line above Eq. 12-111, a $\theta_w$ is missing. Change $N_n=V_n/(\pi d_n^3/6)$ to $N_n=V_n/(\theta_w \pi d_n^3/6)$.

p. 460 Table 12.8, the “Conditions” column, third from the bottom, the subscript should be n not w on the 0 term, so change the column entry from “0.04<\theta_w<0.10” to “0.04<\theta_n<0.10”.

p. 461 Problem 12.2, Line 3 on page. Order of dL is wrong. Change $(A_p,0\text{Ld})$ to $(A_p,0\text{dL})$ On next line, change $(A,d\text{t})$ to $(A,d\text{t})$

p. 463 Problem 12.9, part b, the end of the first sentence is missing. Add text following “(D_{pw,s}/a_s)=8.8\times10^{-8}\text{s}^{-1}” so that it becomes “(D_{pw,s}/a_s)=8.8\times10^{-8}\text{s}^{-1} and D_{tw,s}/a_s=0.17\times10^{-8}\text{s}^{-1} where a_s=\text{soil grain radius}”. Also in the next sentence, change “(see Problem 3.13)” to “(see Problem 3.15)”.

CHAPTER 13

p. 474 - Replace the two sentences above eq. 13-13, which are: “The volume of the generator particle is larger than that of the primary particle by $V_g=V_p/\xi_g$. Defining the generator length as $l_g$, the generator volume can be written as” with “Defining the volume of a single, hypothetical “fractal generator” particle as $V_g=V_p/\xi_g$ and with a length $l_g$, the generator volume can be written as”

- Eq. 13-13, the subscript in the first term should be “g” not “g,e”: change “$V_{g,e}$” with “$V_g$”.

- Eq. 13-16, change N to N*

- Eq. 13-16 and 13-17, l subscript should be p not g: change $l_g$ to $l_p$

p. 475 - Eq. 13-18, l subscript should be p not g: change $l_g$ to $l_p$

- First sentence of section “Aggregate Mass”, line 2, change dp to lp so equation reads $m_p=\rho_p \xi_p l_p^3$

- Eq. 13-19: b subscript should be a D: change $b_p$ to $b_D$

- Eq. 13-19: l subscript should be p not g: change $l_g$ to $l_p$

- Three lines above eq. 13-20, change $v_{ag, e}=(\xi/6) l_g^3$ to $v_{ag, e}=(\xi/6) l_p^3$

- Eq. 13-20, change from $p_{ag} = \frac{\pi}{6} \rho_p \xi_p b_p l_p^3 D_p$ to $p_{ag} = \frac{6}{\pi} \rho_p \xi_p b_D \left( \frac{l_p}{l_p} \right)^{D_p}$

- Eq. 13-21, change from $\theta_{ag} = 1 - \frac{\pi}{6} \xi_p b_p l_p^3$ to $\theta_{ag} = 1 - \frac{6}{\pi} \xi_p b_D \left( \frac{l_p}{l_p} \right)^{D_p}$

p. 477 Table 13.2, Several equations in last column need to be changed

- N* equation, l subscript should be p not g: change $l_g$ to $l_p$

- $v_{ag}$ equation, l subscript should be p not g: change $l_g$ to $l_p$

- $v_{ag, e}$ equation. Remove dot over $v_{ag, e}$

- $m_{ag}$ equation, l subscript should be p not g: change $l_g$ to $l_p$

- Change $\rho_{ag}$ equation to: $p_{ag} = \frac{6}{\pi} \rho_p \xi_p b_D \left( \frac{l_p}{l_p} \right)^{D_p}$

- Change $\theta_{ag}$ equation to: $\theta_{ag} = 1 - \frac{6}{\pi} \xi_p b_D \left( \frac{l_p}{l_p} \right)^{D_p}$

- Change $U_{ag}$ equation to: $U_{ag} = \left[ \frac{2g \xi_p b_D (\rho_p - \rho_w)}{b_{del} \rho_w \xi_p v_w^2} \right] \frac{l_p^{1+D_p}}{l_g^{1+D_p}}$

p. 480 Two lines above eq. 13-34, change $A_{ag, e}=\xi_p l_g^{2+D_p}$ to $A_{ag, e}=\xi_p l_p^{2+D_p}$

Eq. 13-34, change to: $U_{ag} = \left[ \frac{2g \xi_p b_D (\rho_p - \rho_w)}{b_{del} \rho_w \xi_p v_w^2} \right] \frac{l_p^{1+D_p}}{l_g^{1+D_p}}$

Eq. 13-35, include parentheses in power, and change $D_p$ to $D$, so the equation is: $U_{ag} \sim l^{D_p-2} \xi_p l_p^{1+D_p}$

p. 481 Table 13.4, subscript on b term should be a lower case d (not D) in first column

Change fourth row to be $U_{ag} \sim l^{D_p-2} \xi_p v_w^2 / (D_p-2)$

Change fifth row to be $U_{ag} \sim l^{D_p-2} \xi_p v_w^2 / (D_p-2)$
CHAPTER 14
p. 509  Eq. 14-8, change in first term “$\Delta^2 \Psi$” to “$d^2 \Psi$”
p. 510  Eqs. 14-9 and 14-10, change in first term “$\Delta^2 \Psi$” to “$d^2 \Psi$”
p. 510  Eq. 14-9, subscript “i” is missing from last N term, so change “$N_i$” to “$N_{\infty}$”
p. 511  Line 3, spelling error, change “Hemholtz” to “Helmholtz”.
Line 4, spelling error, change “outer Helmholtz lange” to “outer Helmholtz layer”.
p. 512  Example 14.1, Line 2, change from 20°C to 25°C.
  Example 14.1, Eq. 14-21, change the power in the last term from $\frac{1}{2}$ power to $-\frac{1}{2}$ power.
p. 516  Eq. 14-134, change the + sign to a - sign in front of the last term, so it is “- $AR/12s$”
p. 520  Second paragraph, line 3, change “Collisions by Brownian motion” to “Collisions by differential sedimentation”
p. 522  Equations 14-44, 14-47 and 14-48, change the v (“vee”) in the denominator to $\nu$ (greek letter “nu”).
p. 523  Eq. 14-47, after the letter $g$ on the r.h.s. of the equation, omit the greek letter $\pi$ from the first term, so the equation now will read

$$\beta_m = \left( \frac{g}{18 \nu' \rho'} \left| \Delta^2 \Psi - \Delta^2 \phi \frac{\pi}{4} (\phi' + \phi)^2 \right. \right)$$

CHAPTER 15
p. 581  2nd line below eq. 15-60, replace “Eq. 14-49” with “Eq. 15-49”.
p. 581  Table 15.2. “Collector Efficiency” column, in the third line down, replace “$\gamma^{2/3}$” with $b_{1/3}$ so the equation reads:

$$\eta = 4.04 b_{1/3} \rho_e^{-3/2} + \frac{3}{2} \rho_e^{-1} + S$$
p. 610  Problem 15.2, line 8, change “$10^{-15}$ g/cm²-s³” to “$10^{-13}$ g/cm²-s²”

APPENDIX
p. 631  Table A3.7, the diffusivity of naphthalene should be changed from “0.513” to “0.0513”
p. 632  Table A3.9, last column, the subscript should be “C” not “A”, so change “$D_A$” to “$D_C$”.
p. 644  Eq. A4-53, at the end a minus sign is missing, so change “n=1” to “n=-1”
  Eq. A4-54, at the end a minus sign is missing, so change “n=1” to “n=-1”