

Atmospheric Pollution: History, Science, and Regulation

Corrections and Modifications

Mark Z. Jacobson
Department of Civil & Environmental Engineering

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Acknowledgments

P. xi. Change “Osalp” to “Ozalp”

P. xi. Add Diana Ginnebaugh, Jacques Grinevald, Ricardo Kulheim, Yang Zhang
alphabetically to Acknowledgments

Chapter 1

P.2, Section 1.1.1, paragraph 2, change “protons and electrons” to “protons and neutrons”

P. 6, Table 1.3, left column, change “Amonium sulfate” to “Ammonium sulfate”

P. 11. Section 1.2.2.2. Change “inflammable” to “flammable” for clarity although both
mean the same thing.

P. 13, last line. Change “ $K_2CO_2(s)$ ” to “ $K_2CO_3(s)$ ”

P. 14, line 1. Change “poisonous or foul smelling” to “noxious or poisonous”

P. 14, line 3. Add the sentence. “Nitrogen is tasteless, colorless, and odorless.” After
“..volume.”

P. 14, line 3, add “in 1790” between “given” and “by Jean Antoine Chaptal”

P. 17, six lines from bottom, change “feldspar” to “fluorspar”

P. 20, Section 1.2.3.7. Change “ozien” to “ozein”

P. 27, Problem 1.8, change “(a) Priestly” to “(a) Priestley”

Chapter 2

P. 39, Figure 2.7 (b): “Lower mantle (400-2900 km)”, change “400” to “700”

P. 42, last line of text; P. 43, line 4; P.46, line 4; and P. 46, 9th line from bottom”, change “two step” to “two-step”

Chapter 3

P. 60, two lines above Example 3.4, change the units for Boltzmann’s constant from “m³ mb K⁻¹” to “m³ mb K⁻¹ molec.⁻¹” and from “cm³ mb K⁻¹” to “cm³ mb K⁻¹ molec.⁻¹”.

P. 63, Table 3.3. Change “C₆H₅CH₃” to “C₆H₅CH₃(g)”

P. 65, second line under carbon reservoirs, change “gigatons” to “gigatonnes” and “tons” to “tonnes”

P. 65, first paragraph under “Carbon reservoirs”, add period to last sentence of paragraph.

P. 65, line 6 from the bottom, change 'Denitritication' to 'Denitrification'

P. 70, Third sentence of Section 3.6.4. Change “carbon dioxide, are” to “carbon dioxide are”

P. 71 Under "Sources and Sinks" section, add a period “.” to the end of the last paragraph

P. 73. Under sulfur dioxide “Sources and Sinks,” remove the sentence “Between 1988 and 1997, SO₂(g) emissions decreased in the United States by 17%” since that sentence is duplicative of two sentences before, which lists the correct reduction.

Chapter 4

P. 85, line 4, change “This law, was” to “This law was”

P. 87, caption to Fig. 4.2, change “Gary Indiana” to “Gary, Indiana”

P. 87, 3rd paragraph, 3rd line, change “the Donora Zinc Works a zinc” to “the Donora Zinc Works, a zinc”

P. 87, 3rd paragraph, 6th line, change “died,14” to “died, 14”

P. 89, line 30, change "erly" to "early", and change "garage", to "garbage"

P. 93, first line after yellow box, remove comma in “Background tropospheric,”

P. 94, Example 4.1, change 44.7 ppbv to 45.2 ppbv

P. 95, Reaction 4.8, change “Nitrogen oxide” to Nitrogen dioxide”

P. 108, line 7, change “[C₆H₅CH₃(g)]” to [C₆H₄(CH₃)₂(g)]”

Chapter 5

P. 125, 10th line from bottom, change “Metamorphisis” to “Metamorphosis”.

P. 134, reaction (5.7), add “2” before “NO₃”

P. 140, 17th line from top, change “containing” to “coated by”

P. 141, 14th line from bottom, change “Mortality was...sulfates.” to “Fine particles, including sulfates, were correlated with mortality.”

P. 146, 3rd line from bottom, change “C” to “C”

P. 150, lines 10 and 12 and P. 388 (index), change "meridional" to "meridional"

P. 150, Fig. 6.5. Change “H” at tropopause at 60N and 60S to “Lower” and “L” at tropopause at 90N and 90S to lowest to indicate altitude at constant pressure decreases from equator to pole aloft. Change the text to correspond to this correction.

Chapter 6

P. 156. Table 6.2. Change “Varying” to “Variable” four times.

P. 164. Figure 6.15, caption. Change July 23 to December 19.

P. 167. Fourth paragraph. Change “Mount Washington, Vermont” to “Mount Washington, New Hampshire”

P. 176. Figure 6.28, Change slopes of dry and wet adiabatic lapse rates in second layer from bottom to the same slopes as in the other layers.

Chapter 7

P. 181, 7 lines from the bottom, change “absorbed these wavelength” to “absorbed these wavelengths”

P. 186, 6 lines from bottom, change “site” to “sight”

P. 198, 8 lines from top and one 2 lines from Equation 7.8, change “site” to “sight”

P. 204, 5 lines above figure, change “site” to “sight”

Chapter 8

P. 216, add period to last sentence of Section 8.1.6.

P. 224, 5th line from bottom, change “Currently,...” to “In 2002,...”

P. 227, 19th line from the bottom. Change “Sao Paolo, the capital of Brazil...” to Sao Paolo, Brazil” since Sao Paolo is not the capital.

P. 228, line 9. Remove “derived mostly from the Amazon River.”

Chapter 9

P. 245, line 5 from bottom, second paragraph, change “British physicist Ernest Rutherford”, to “the New Zealand-born British physicist, Ernest Rutherford...”

P. 245, line 12, change “fission” to “fusion”

P. 246, 6th line under the heading, “Concentrations,” change “is a the number” to “is the number”

P. 246, 5th line under the heading, "Health Effects," change "increases" to "increase"

P. 250, Table 9.3 and P. 252, Problem 9.3. Change “Particulates” to “Particles”

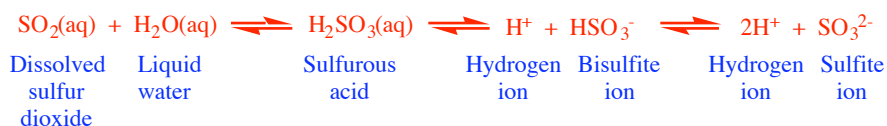
P. 252, Question 9.3, first sentence, change period to question mark at end of sentence.

P. 254. Section 10.1, line 5, add space between “-and”

Chapter 10

P. 261, First sentence of Section 10.3.1. change “fist” to “first”

P. 262. Equation 10.11 should read



P. 262, 3rd line after Eq. 10.12, change “clouds drops” to “cloud drops”

P. 272, Problem 10.9. Change “into atmosphere” to “into the atmosphere”

Chapter 11

P. 276, Fig. 11.4. Remove “x 3” in the figure legend for “Air”

P. 278, Table 11.1. Change “Particulate” to “Particle” two times.

P. 278, line 13, delete “-“ after “Gas”

P. 280, 7th line of Section 11.3.2, change “(Section 2.3.5)” to “(Section 2.3.6)”.

P. 283, Section 11.4.1, line 5, change “eruption” to “eruptions”

P. 283, Section 11.4.1, line 9, change “temporarily” to temporary”

P. 288, line 6, change “chose” to “chosen”

P. 290. Second-to-last paragraph. Change “not transported from” to “not transport from” and change “but transported from” to “but transport from”.

P. 290. Second-to-last paragraph. Change “about 55 and 116 years,” to “about 45 and 100 years,”

P. 295, 8th line of Section 11.8, change, “220 DUs” to “220 DU”

P. 296, bottom paragraph, second sentence, add “a” to read “The hole and dent are caused by a set of...”

P. 297. Second paragraph. Change “...deposited to the ice phase in the ratio 1:3. Such ice crystals...” to “...deposited to the solid phase in the ratio 1:3. Such crystals...”

P. 301. Last sentence before Section 11.9, change “is less widespread” to “are less widespread”

P. 301. Section 11.9, first line, change “incidents” to “incident”

Chapter 12

P. 310, Section 12.1, line 7, change “reemits” to “reemit”

P. 311. Equation 12.3. Correct equation to read

$$F_s = \left(\frac{R_p}{R_{es}}\right)^2 F_p = \left(\frac{R_p}{R_{es}}\right)^2 \varepsilon_P \sigma_B T_p^4$$

P. 311, 3rd line from bottom, change 1.5 to 1.49598

P. 312, 1st line, change “147” to “147.1”

P. 312, 2nd line, change “152” to “152.1”

P. 312, 5th line from top, change “3.3” to “3.4”

P. 312, 6th and 7th lines from top, change “6.6” to “6.9” twice.

P. 318. Change Jean Baptiste Fourier to Joseph Fourier and the date of his discovery from 1827 to 1824. Citation: “Remarques générales sur les températures du globe terrestre et des espaces planétaires, Annales de Chimie et de Physique, 27, 136-167, 1824.

P. 321. Figure 12.8 caption should read “from 1751 to 1997” rather than “from 1860 to 1997”

P. 321, 6th line from bottom, change “29.3” to “79.3”

P. 332, 5th line from top, change “3.3” to “3.4”

P. 332, 6th line from top, change “6.6” to “6.9”

P. 332, Example 12.2, change “147” to “147.1”, change “152” to “152.1”, and change “149.5” to “149.6”

P. 349, first line, change “particulates” to “particles”

Appendix

P. 354, change R_p from 1.5×10^{11} m to 1.49598×10^{11} m

References

P. 363. Move the reference to McElroy M.B. et al. after that of McElroy J.L and Smith T.B.

P. 364. Change “Molina M.J. and Roland F.S.” to “Molina M.J. and Rowland F.S.”