**ELEMENTARY PRINCIPLES OF CHEMICAL PROCESSES**

**ERRATA – 4th EDITION TEXT – Second printing and higher**

***(****Many of these corrections may have already been made in your copy of the book*

*if you have a higher printing)*

**Updated 10-16-20**

* **Front endsheet**:
* Factors for Unit Conversions, under Pressure units: on the second line there should be “” before, not after, “dynes/cm2”
* **p. 8:** In section 2.3, number 3(b) under “Derived units”, the first equivalency term on the right hand side should read 
* **p. 31:** Replace the text for problem 2.13, part (b), with the following: “Suppose you decide to install the 240W panels, and the average cost of electricity purchased over the next three years is $0.15/kWh. You can sell back "extra" electricity (the amount of electricity which the solar panels produce over and above your monthly requirement) to the utility for $0.15/kWh. What would the total cost "savings" be for the utility "sell back" over that 3-year period? What more would you need to know to determine whether the investment in the solar panels would pay off?”
* **p. 70:** In problem 3.13, part (a), insert the phrase “(assume it’s rectangular)” at the end of the first sentence.
* **p. 74:** In problem 3.30, the first line should have the word “Wet” inserted at the beginning; “Wet coal being used….” Below the weight % table, the first sentence should be replaced with, “The wet coal contains 4.58 lbm H2O per lbm of dry coal.”
* **p. 77:** In problem 3.37, the units in the table should be “Million Metric Tons C”, not “Metric Tons C”
* **p. 141 (Section 4.7a):** In the atomic H balance, the equation under the arrow should read “600 kmol H/min = 80 kmol H/min + ”
* **p. 148 (Example 4.7-1)**: In the O2 Balance, the general mass balance equation for O2 should say: "Output = Input - Consumption" instead of "Output = Generation - Consumption".
* **p. 149 (Example 4.7-1):** In the next-to-last sentence of the example, replace “Once again the same flow rates have been calculated,” with “Once again the same molar amounts have been calculated,”.
* **p. 174:** In problem 4.5, part (a), line 2, the units of  should be (g C6H6/sec).
* **p. 179:** In problem 4.19, on the second line of part (a), replace the word “feed” with “aqueous serine solution”. The original wording of part (b) is correct: the second line should say “required feed rates of aqueous serine solution and methanol.”
* **p. 186:** In problem 4.36, in the list of data provided, *R*(SO2 analyzer) for the outlet gas should be 11.6, not 116.
* **p. 192:** In problem 4.48, the second sentence should say"The feed ratio to the extractor is 3 kg hexane/kg beans".
* **p. 233:** for item 4 in the top 3rd of the page: replace “…5.3-11 for *T*r,…” with “5.3-12 for *T*r,…”
* **p. 249:** in the table below part (e), the units for gas evolved should be (mg CO2), not (g CO2)
* **p. 255:** In problem 5.48, at the end of the first sentence, add “at 25oC”.
* **p. 330:** in problem 6.53, change the solubility coefficient (line 3) from 0.0901 to 0.901
* **p. 374:** in Example 7.6-2, the pressure identified on the flowsheet for both the inlet and outlet streams should be “1 MPa”, not “5 bar”.
* **p. 400:** in problem 7.62(a), replace the phrase “smooth (i.e. ignore friction)” with “frictionless”.
* **p. 448:** In Example 8.5-2, in the second line of the problem statement, change “1 atm” to “0.31 atm”. Add a sentence to the problem statement, “Assume the effect of pressure on enthalpy is negligible so that Figure 8.5-1 can be used.” In the flowsheet, change the pressure of both outlet streams from “1 atm” to “0.31 atm”.
* **p. 460:** In problem 8.17, part (c), the last part of the sentence should say, “…than is calculated in Part (b).”
* **p. 469:** In part (a), first sentence, change “0.40 mJ/h” to “0.40 MJ/h”. In the second sentence, replace “If she is modeled as a closed adiabatic system at constant pressure” with “If she is modeled as a closed system at constant volume”.
* **p. 470:** In problem 8.59, the outlet conditions of the vapor and liquid streams should be 0oC and 3 atm. This should be corrected in the third line of the problem statement as well as both outlet streams in the flowsheet diagram.
* **p. 512:** In Footnote 7, last line, “1134” should be “1477”.
* **p. 535:** In problem 9.15, 3rd line, change “beween” to “between”
* **p. 541:** In problem 9.24, under “Data for Diethyl Ether”, the last term in the relation for Cpshould be  instead of *T* 2.
* **P. 547:** Delete the last sentence on the page:  "A portion of the liquid condensate in the reactor is recycled to the reactor at a rate equal to the rate at which ethyl chloride is vaporized, and the rest is taken off as product."
* **pp. 628, 630, 632, 634 (Appendix Table B.1):** In Table B.1 beginning on pp. 628, the carats should be removed from the headings of the last two columns (standard heats of formation and combustion), making those headings  and .
* **p. 631**: Change the entry for the boiling point (*T*b) for mercury from -356.9 to 356.9.
* **p. 655 (Answers to Test Yourself Problems):**
* TY on p. 134, Question 3: the last response should be 50 (delete “kmol”).
* TY on p. 140, Question 4: the response should be “80, 10” (delete “mol”)
* **p. 656 (Answers to Selected Problems):**
  + TY for p. 150, Question 3: remove the “mol” unit from each extent of reaction answer , 3 instances.
* **p. 662:** 
  + The answer to problem 3.16 should be “(c) 0.63”
  + The answer to problem 3.30 should be 
  + The answer to problem 4.2 should be “4.1667 L/s”
  + The answer to problem 4.6 should be for (a) instead of (b)
* **p. 663 (Answers to Selected Problems):** 
  + The answer to problem 4.66 should be “(e) 0.795 mol A reacted/mol A fed”
  + The answer to problem 4.80 should be “(a) Overall CO conversion: 76%”
  + The answer to problem 4.82 should be 260.4 kmol C8H18/h.
  + The answer to problem 4.90 should be “(a) 49% excess O2”.
  + The answer to problem 5.4 should be “2.3 x 103 min”
  + The answer to problem 5.64 should be “1.46 L”
* **p. 664 (Answers to Selected Problems)**
  + In the answer to problem 6.34, replace 1.56 with 1.98.
  + In the answer to problem 6.62, replace “C4H10” with “overhead vapor”
* **p. 665**:
  + The answer to problem 8.100 should be “(b) -471 kJ/L product”
  + The answer to problem 9.8 should be for (c) instead of (b)
  + The answer to problem 9.12 should be “**(c)** *Q* = - 0.34 kW”
  + The answer to problem 9.18 should be “**(b)** -0.812 kW”
  + The answer to problem 9.30 should be “**(a)** 862 kPa”
  + The answer to problem 9.32 should be “**(b)** 322.85oF”
  + The answer to problem 9.36 should be “**(b)** 1387.5 kJ”
  + The answer to problem 9.54 should be “**(d)** -70,459 kJ/h”
  + The answer to problem 9.60 should be “**(b)** 986 kJ transferred from reactor”