

first printing:

p. 38 formula after “or” on a line by itself should read:

$$n_1 = n_0x, \quad n_2 = n_0x_2, \quad n_3 = n_0x_3, \quad \text{etc.}$$

p. 43 in problem **2.24** ~~$\Delta\epsilon_{i,j} = 8.0 \times 10^{-25} \text{ J}$~~ $\Delta\epsilon_{i,j} = 8.0 \times 10^{-21} \text{ J}$

p. 45 graphic. Some lines of Cl₂ graph are missing.

p. 70 Figure 3.18 top line above “pumping” should read $1s^1 2s^1$, not $1s^2 2s^1$

p. 73 Problem 3.7 should refer to $\epsilon_{1,2}$ not $\epsilon_{0,1}$

p.73 in problem **3.15** for $k_f = 408 \text{ kg/s}^2$ not 290 kg/s^2

p 109 **5.7** (a), (b), (c) should all read “+ CH₃” rather than “+ CH₄”

p 156 Problem 8.6. Strike ~~and (d) based on mole fraction~~

p 169 Problem 9.9(a) equation should read $\text{N}_2\text{H}_4(l) + 3 \text{O}_2(g) \rightarrow 2 \text{NO}_2(g) + 2 \text{H}_2\text{O}(g)$

p 169 Problem 9.14(c) C₂H₅NO₂ is not specific enough. It should read CH₃CH₂NO₂

p 188 Problems 10.12 and 10.13 should be recast:

10.12 Using data from Appendix D, make a table showing T(K), $q(J)$, $q_{\text{sur}}(J)$, $\Delta S(J/K)$, $\Delta S_{\text{sur}}(J/K)$, and $\Delta S_{\text{universe}}$ for the conversion of one mole of solid I₂ to one mole of gaseous I₂ at the following temperatures: (a) 25 °C, (b) 125 °C, (c) 159 °C, (d) 175 °C.

10.13 Assuming that freezing one mole of liquid methanol releases 2.196 kJ of energy and lowers the entropy of the system by 12.5 J/K at all temperatures (an approximation), make a table showing T(K), $q(J)$, $q_{\text{sur}}(J)$, $\Delta S(J/K)$, $\Delta S_{\text{sur}}(J/K)$, and $\Delta S_{\text{universe}}$ for the melting of 1.0 g of solid methanol at the following temperatures:

(a) -125 °C, (b) -95 °C, (c) -50 °C, (d) 0 °C. Explain how your values for $\Delta S_{\text{universe}}$ agree with the fact that the melting point of methane is -98 °C.

p 188 Problem 10.18 Insert “(c)” prior to “Which explains best...”; in last sentence change “disorder” to “constraints”

p 201 space character missing between “2” and “NH₃” in first chemical equation.

p. 209 **11.10** last line in table should read 1.39×10^{-3}

p. 228 in heading “Application: Raoult’s Law, $P = \chi_{\text{H}_2\text{O}}P^\circ$ ” the “naught” isn’t a degree symbol

p. 232 in problem 12.50 in the reaction $\text{H}_2\text{O}(s) \rightarrow \text{H}_2\text{O}(l)$, the second O is a zero.

p 240 Figure 13.9. 2nd arrow from left, from b up to line 3, should be reversed, pointing up, not down.

p 282 missing data: $\text{HNO}_3(l)$ -173.23 155.60 -79.91

p 287 answer 1.17(b) should be 0.25, not 4.00

p. 288 **3.26** answer should be 4.06×10^{-40} J

p. 288 **4.4(d)** answer should be 244 K

p 289 answer 6.9 answers (b) and (c) should be switched

p. 289 **8.13(c)** answer should be 661 J/K

p 290 answer 9.5(a) should read 1.047 kJ

p 290 answer 9.9(a) should read -467.91 kJ/mol (c) should read +397.32 kJ, not -397.32

p 290 11.1 strike “-4803 J” and “-67411 J”

p. 291 **12.35** very last formula should be (s) not (g)

p. 292 continuation of answer to problem **12.35**, ~~370 K~~ 316 K, ...

p 292 Problem 13.18(c) should read 1.001 V, -400 kJ, 2.3×10^{70} .

Second Printing (5/2011)

(no errata identified)