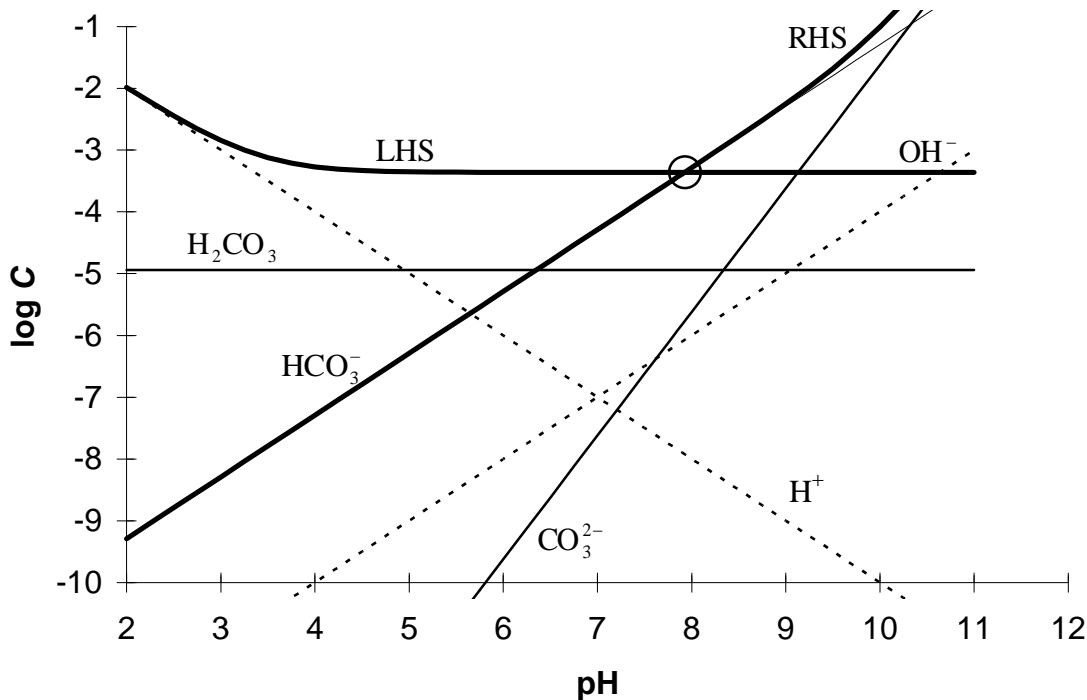


ERRATA FOR 3RD PRINTING OF WATER CHEMISTRY

1. (10/04/06) p.53. Delete the first two sentences of Problem 7; start with “The activity coefficients...” Delete the word “concentration” from that sentence.
2. (10/25/03) p.124, solution to Example 2.14: In last equation in part *b*, replace 1.74 with 1.72.
3. (10/11/05) p.128, Problem 3. At the end of the paragraph preceding part *a*, add: Reaction 1 is at equilibrium, but Reaction 2 might not be.
4. (10/10/07) p.136, Under the last schematic in Figure 3.3, the H₂O should have a coefficient of 2 in front of it.
5. (11/13/03) p.139, Table 3.2: For arsenous acid (H₃AsO₃), the value of 13.41 in the second column of numbers should be moved to the column for p*K*_{a3}; the value that should be in the column for p*K*_{a2} is 12.10. Make the same change in the copy of this table on p.642.
6. (10/10/07) p.168, in the table in the middle of the page, in the line for Na, delete the term + (10⁻⁴)(1).
7. (10/26/05) p199, part a, last equation: should be “(where {H⁺} = {OCl⁻})” instead of (where {H⁺} + {OCl⁻})”.
8. (10/28/05) p.229. In the table, in the row with the Cu(NH₃)_{*x*}²⁺ species, the entry under under +1 should be Cu(NH₃)₂⁺.
9. (10/24/06) p.230. In the last sentence of Problem 1, replace “charge balance” with “*K_a*”.
10. (11/17/06) p.267. In the last row of the third paragraph, the values 9.0 and 4.7 should be reversed.
11. (10/28/05) p.288. Problem 2(a)(vi): p*K*_{a1}, p*K*_{a2}, and p*K*_{a3} should be 3.13, 4.72, and 6.33, respectively.
12. (11/08/04) p.292. In Problem 14, second paragraph, second sentence: delete the subscript “3” on “NaCl₃”.
13. (11/02/06) p.310. In the Log *K* column of the first table near the bottom, change 4.13 to 3.17.
14. (11/17/06) p.317: The value in the final column, second row, should be 1.00x10⁻⁴, not 1.00x10⁻³.
15. (11/13/06) p.347. The first and third equations below the PC table should be:

$$TOT_{\text{H}_{\text{in}}} = 10^{-10.5} - 10^{-3.5} - 2.96 \times 10^{-5} - (2)(4.44 \times 10^{-5}) = -4.35 \times 10^{-4}$$
$$\{\text{H}^+\} + 4.35 \times 10^{-4} = \{\text{OH}^-\} + \{\text{HCO}_3^-\} + 2\{\text{CO}_3^{2-}\}$$

In the subsequent paragraph, the value of the equilibrium pH should be 7.96 (not 7.34), the value of $TOTCO_3$ should be 4.39×10^{-4} (not 1.29×10^{-4}), and the amount of $CO_2(g)$ that dissolves should be 3.64×10^{-4} (5.5×10^{-5}). The graph on p.348 should be replaced with the following one:



16. (12/06/05) p.456. In Problem 10, the chemical shown as $Fe(NH_4)PO_4(s)$ should be $Fe_2(NH_4)PO_4(s)$.
17. (12/16/05) p.458. At the end of Problem 16c, add: K_{s0} for $ZnO(s)$ is for the reaction $Zn^{2+} + H_2O \leftrightarrow Zn^{2+} + 2 OH^-$.
18. (10/07/07) p.501, beginning of line 3: e^- should be a subscript; *i.e.*: \bar{G}_e^- .
19. (12/22/06) p.518. Toward the end of the first full paragraph, in the expressions “ $pe > 3.8$ ” and “ $pe = 3.8$,” the values should be changed from 3.8 to -3.8 .