ERRATA

Organic Chemistry, 6th Edition, by Marc Loudon
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(Items marked with (*) were corrected in the second printing.)
(Items marked with (†) were corrected in the third printing, which is the first printing under the Macmillan/Freeman imprint.)
(Items marked # will be corrected in the 4th printing, which will be the second printing under the Macmillan/Freeman imprint.)

How do I know what printing I have? Look at the reverse side of the title page, where you will see all sorts of publication information. On the last line, you will see a series of digits. These digits will end with the number of your printing. Thus, 10 9 8 7 6 5 4 3 2 1 is a first printing; 10 9 8 7 6 5 4 3 2 is a second printing; and 10 9 8 7 6 5 4 3 is a third printing.

Chapter 1

p. 42 In Problem 1.33(a), item 2 in the list: the quantum number should be l, not m_l.

Chapter 2

*p. 69 The text above the third display should say "Three other examples."

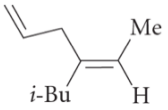
Chapter 3

†p. 103 The reference to Study Guide Link in the last paragraph should be deleted. (There is no SGL 3.4.)

Chapter 4

†p. 142 In Study Problem 4.6, the name at the end of the problem should have a -3- rather than a -2- before the isobutyl group to match the name at the beginning of the problem on the previous page. That is, the name should be (*Z*)-6,6-dibromo-3-isobutyl-2-heptene.

†p. 143 In Problem 4.5b, a hydrogen is missing in the structure. The structure should be



†p. 145 In Problem 4.10, choices *A* and *D* are identical. Choice *D* should instead be $C_{10}H_{16}O_2$.

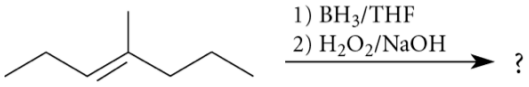
†p. 152 The name of the product in Eq. 4.15 is wrong; it should be 2-bromo-2,3-dimethylbutane.

*p. 178 In Problem 4.58, 4th line, there should be a hyphen in 1-methylcyclohexene.

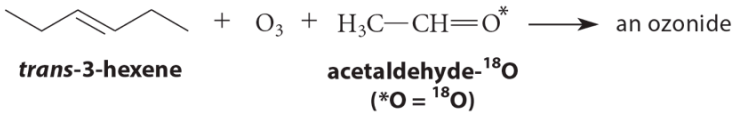
Chapter 5

†p. 193 Following the first Level-3 header, "Conversion of Alkenes …" , the 3 in BH3 should be a subscript, to read, BH_3.

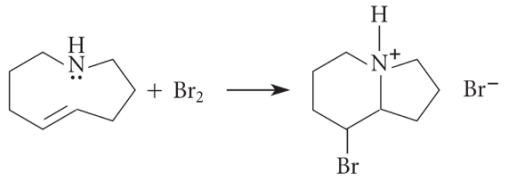
#p. 224 In Problem 5.31(e) at the top left of the page, the reagents under (2) should be hydrogen peroxide (H_2O_2) and NaOH.



#p. 226, 228 In Problem 5.52, change *trans*-2-hexene to *trans*-3-hexene. Change Fig. P5.52 on p.228 so that the starting material is *trans*-3-hexene. The figure is as follows:



†p. 227 In Problem 5.49(b), the product should not have a double bond. That is, the structure of the product should be as shown below:



†p. 227 In Fig. P5.50 for Problem 5.50, the two structures on the right have too many hydrogens on one of the alkene carbons. The corrected figure is shown below:

alkene:	$H_2C=CH_2$	$(CH_3)_2C=CH_2$	$(CH_3)_2C=CHCH_3$
relative rate:	1.0	1.4	0.077

#p. 246 The paragraph near the middle of the page should read: “The optical rotation of the two correlated compounds may have different signs, as in this example, or they may have the same sign.” The underline denotes the change.)

Chapter 6

*p. 241 In Problem 6.8(a), the specific rotation of sucrose should be +66.1°. (The solutions manual uses this value for the calculation.)

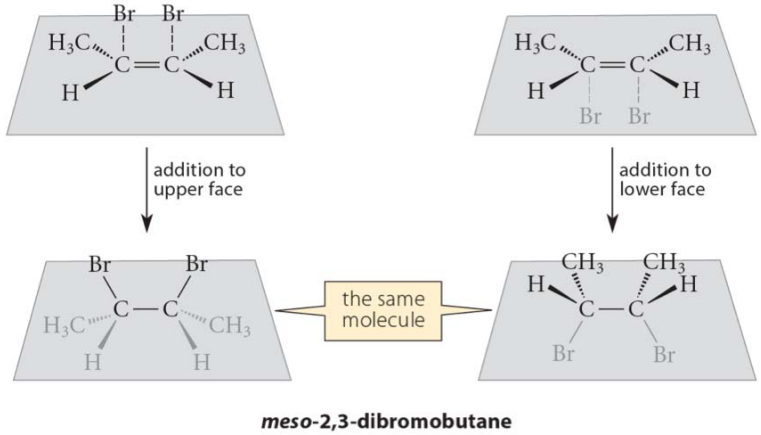
†p. 251 The configuration of the model on the lower right of Fig. 6.12 should be 2*R*,3*S*.

†p. 270 Reword Problem 6.48 to read: “From the outcome of the transformation shown in Fig. P6.48, indicate whether …” Then delete the reference at the end of the problem.

Chapter 7

*p. 291, 292 Two equations are numbered 7.16. These numbers are not changed as there are cross-references to them later in the text. In the second printing these are renumbered (7.16a) and (7.16b), respectively.

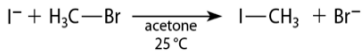
†p. 310 In Eq. 7.34 in Study Problem 7.6, one of the solid-wedge bond perspectives in the structure on the lower left should be changed to a dashed wedge, as follows.



***Chapter 9**

†p. 383 Below Eq. 9.2, in the paragraph beginning, “The base used …”, the statement, “The conjugate acids of alkoxides are called **alkoxides.**” should be changed to read, “The conjugate bases of alcohols are called **alkoxides.**” (That is, change “acids” to “bases.”)

#p. 396 In Table 9.3, the equation in the table header should be as follows:



†p. 397 The caption in Figure 9.4 has the reactions listed in the wrong direction; it should say, for part (a): “The reaction of methyl iodide with bromide ion.” Part (b) should say, “The reaction of neopentyl iodide with bromide ion.”

#p. 410 The sentence above Eq. 9.40a should describe E2 reactions as stereospecific anti additions; that is, replace the word *stereoselective* with the word *stereospecific*. (Because they stereospecific, E2 reactions are also necessarily stereoselective; see p. 311.) Of course, stereospecificity is demonstrable in particular cases only when the reactants and products have appropriate stereocenters.

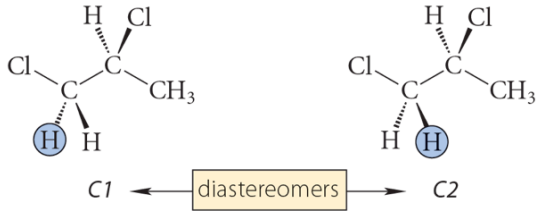
†p. 445 In part (g) of Problem 9.45, the solvent (and reactant) should be CH_2I_2 rather than CH_2Cl_2.

*p. 448 In the second line of Problem 9.75, the CH_2C_{l2} should be CH_2Cl_2; that is, the “l” of “Cl” should not be subscripted.

Chapter 10

†p. 463 In the first full paragraph (below Eq. 10.20c), second line, delete the “x” from “xfrom.”

*p. 490 In the last display, the hydrogen on the dashed bond should be circled:

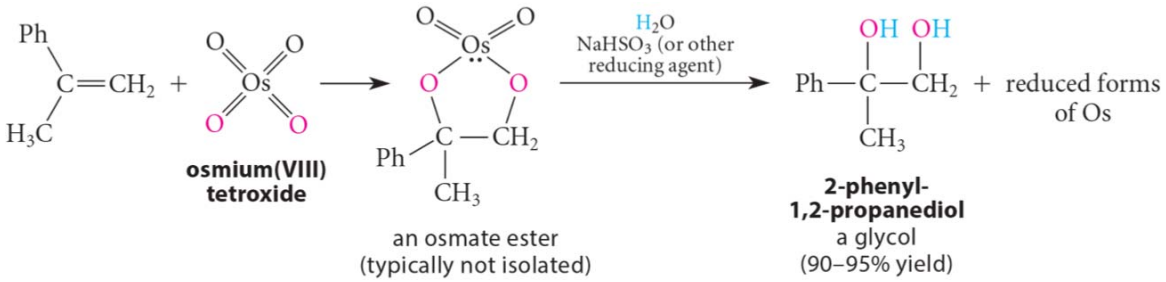


†p. 498 In Eq. 10.71b, the structure of diethyl disulfide is incorrect. The equation should be as follows:

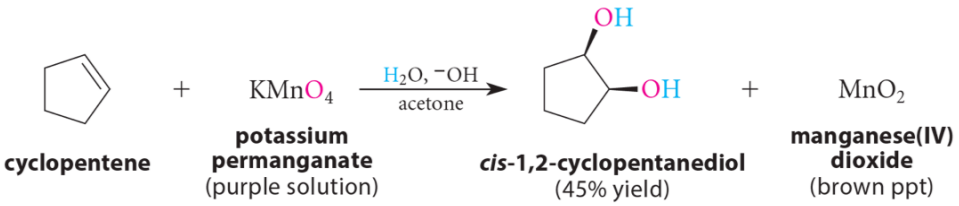
Chapter 11

p. 519 In Eq. 11.18a, the carboxylate ion should have only one minus charge.

†p. 532 The name of the product is incorrect; it should be 2-phenyl-1,2-propanediol.



†p. 534 In Eq. 11.53, the first structure should be labeled cyclopentene rather than cyclohexene.



†p. 539 Line 8 of Sec. 11.8 should read: "…is that many intramolecular reactions are *faster* than their intermolecular counterparts …" That is, the *second* "intramolecular" in the existing line should be changed to "intermolecular."

Chapter 12

†p. 579 In the caption to Fig. 12.7, replace "1,3-dimethyl …" with "1,2-dimethyl …" . In the first line of text on the same page, below the figure, replace "… 1,3-dimethyl …" with " …1,2-dimethyl …".

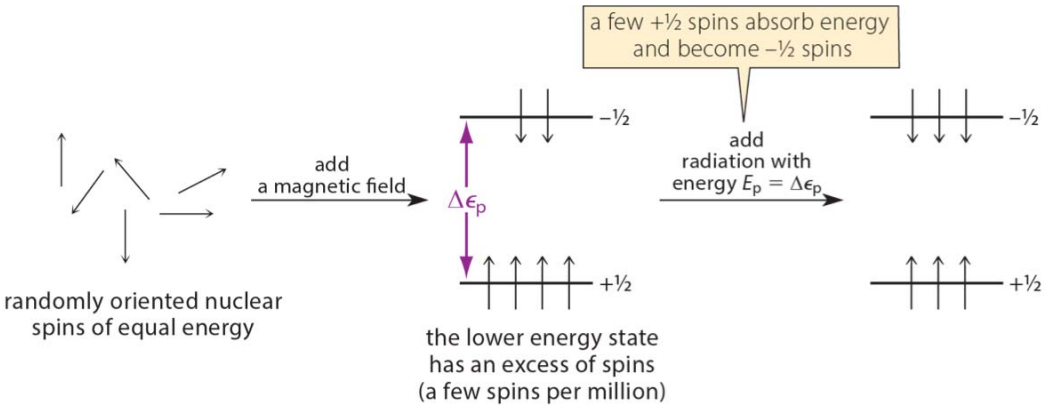
†p. 598 In the paragraph above Study Problem 12.4, first line, change "is" to "in."

†p. 600 The term in the last sentence should be β-elimination rather than α-elimination.

Chapter 13

†p. 612 In Figure 13.2, there should be a Greek delta (Δ) before both instances of the ϵ_p, to read $\Delta\epsilon_p$.

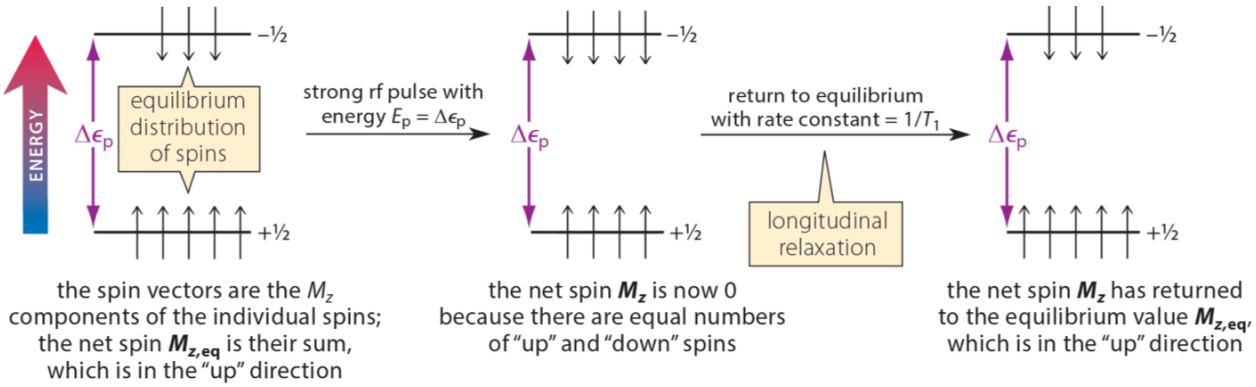
†p. 615 In Eq. 13.3, Greek deltas (Δ) are missing before each instance of the ϵ_p, to read $\Delta\ \epsilon_p$. The display should be as follows:



#p. 631 In the little table associated with Eq. 13.8, the spin of proton 2 in the top row, middle column should be –½ rather than +½.

†p. 640 The fourth line from the bottom of the page should say, " … the splitting of H^b would <u>be</u> multiplicative …"

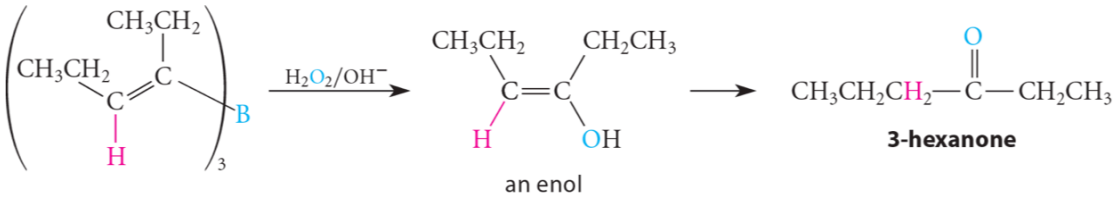
†p. 669 In Eq. 13.18, there should be a Greek delta (Δ) before each of the ϵ_p, to read $\Delta\epsilon_p$. The display should be as follows:



#p. 672 In Problem 13.36, the question refers to a proton NMR spectrum; that is, insert the word "proton" before NMR.

Chapter 14

#p. 693 In Eq. 14.8b, the red carbons in the last two structures should be black. The only colored atoms should be the boron (blue), the oxygen (blue), and the hydrogen (red).



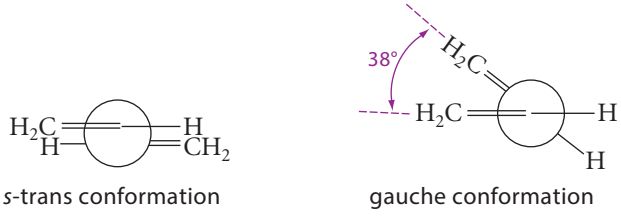
†p. 709 In problem 14.36, the name 1hexyne in the 5th line of the problem is missing a hyphen; it should be 1-hexyne.

Chapter 15

†p. 714 In the paragraph beginning, "As we learned …", after the sentence ending "… are shown in Fig. 15.1b.", replace the remainder of the paragraph with the following:

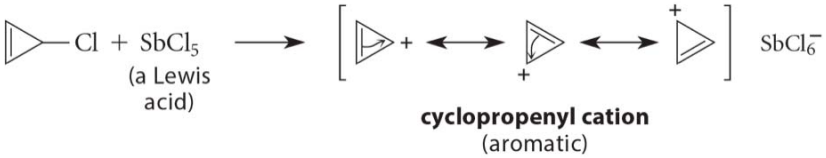
"First of all, each π MO retains a node in the plane of the molecule like the $2p$ orbitals from which it is formed. The MO of lowest energy, π_1, has no additional nodes. Each MO of successively higher energy has one additional planar node, and these nodes are symmetrically arranged within the π system. Thus, the second bonding MO, π_2, has one additional planar node between the two interior carbons. The antibonding MOs π_3^* and π_4^* have two and three additional planar nodes, respectively. (The asterisk indicates their antibonding character.)"

†p. 717 In Figure 15.2b, the Newman projections have too many carbons. The projections should be as follows:



(b)

#p. 768 In Eq. 15.48, the curved arrow on he middle structure is misdirected. The equation should be as follows:



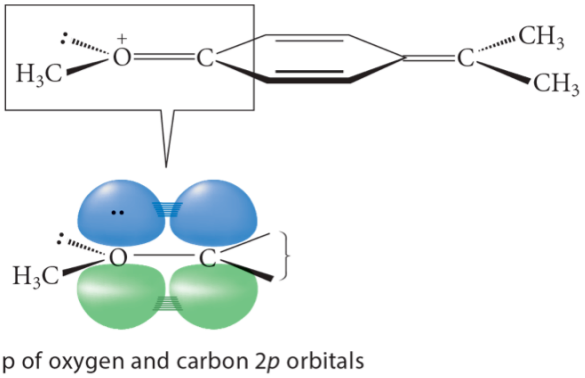
#p. 773 In the display of EPMs on this page, the d+ and d– should be δ+ and δ–, respectively. This was correct in previous printings; this error appears only in the third printing.

Chapter 16

†p. 826 In Eqs. 16.49a–c, a delta (Δ) symbol is missing in all of the enthalpy values; that is, the $H°$ values should be instead $\Delta H°$ values.

Chapter 17

#p. 840 In Fig. 17.1, the wedged bond on the right should be in front of the green orbital lobe, as follows.



†p. 874 In Problem 17.52, the reference should be to Fig. P17.52, p. 876.

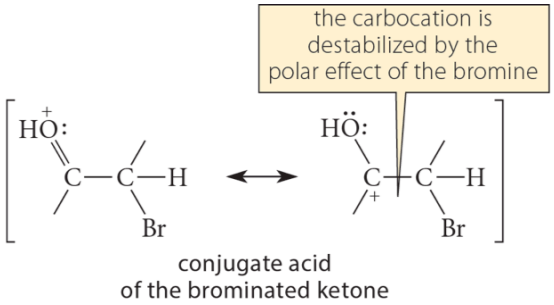
Chapter 18

†p. 891 In the footnote to Table 18.1 labeled **, "p bond" should be changed to "π bond."

Chapter 22

#p. 1114 The last full paragraph on this page assumes incorrectly that addition of bromine to the enol is rate-limiting in the second bromination. More likely, enolization is rate-limiting, as it is in the first bromination. Therefore, change this paragraph and display (22.25) to read as follows:

It follows that introduction of a second halogen is much slower than introduction of the first. Assuming that enolization is rate-limiting in the second halogenation, the slower halogenation is probably a consequence of the polar effect of the halogen, which reduces the stability of the protonated-ketone intermediate in the enolization reaction.



(22.25)

If the rate-limiting transition state in the enolization reaction resembles this carbocation, then the transition state should have very high energy and the enolization rate (and therefore the bromination rate) should be small.

#p. 1117 In the second paragraph (above Eq. 22.30a), delete the cross-reference to Sec. 20.9A.

Chapter 25

†p. 1313 In Eq. 25.33a, the Δ is missing from the free energy; it should be $\Delta G°'$.

†p. 1315 In Eq. 25.35, the Δ is missing from the free energy in all equations; they should be $\Delta G°'$.

†p. 1316 In Eq. 25.36, the Δ is missing from the free energy in all equations; they should be $\Delta G°'$.

†p. 1325 In Problem 25.38, the first sentence should read: "The pK_a of the thiol group of CoASH is 9.6." That is, substitute "CoASH" for "acetyl-CoA." The problem thus refers to the pK_a of the *leaving group* in acetyl-CoA hydrolysis and not to acetyl-CoA itself.

Index

p. I-35 The page reference for the "Pinacol rearrangement" entry should be 961–962, not 951–952.

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