

Typographical Errors in the Dover edition of Schatz & Ratner's book: **Quantum Mechanics in Chemistry:**

Page 319, rows one and five of the cyclopentadienyl secular equation should be $[x,1,0,0,1]$ and $[1,0,0,1,x]$ rather than $[x,1,0,0,0]$ and $[0,0,0,1,x]$

We thank Paul Strohecker for noting this.

Typographical Errors in the Prentice Hall edition of Schatz & Ratner's book: **Quantum Mechanics in Chemistry**

Chapter 1:

page 4, 4 lines after Eq. (1.14b), "degenerate eigenvalues" should be "degenerate eigenfunctions"
page 5, just before Eq. 1.22, change N_n to N_k , and then after "leads to" put "(for $k=n$)"
page 6, before Eq. 1.23, there should be the phrase "and (for $k \neq n$)"
page 6, Eq. 1.23, interchange E_n^o and E_k^o .
page 15, last line of second paragraph, change "Problem 4" to "Problem 3".

Chapter 2:

page 23, Eq. (2.2), remove the minus sign in $-\sin 2/n$ in the first line, and add a minus sign in the $\sin 2/n$ term in the second line.
page 27, 4th line after "2.21", "is symmetry" should be "is a symmetry"
page 35, 3rd line from bottom "occuping" should be "occupying"

Chapter 3:

page 56, problem 3, the second CG coefficient should be $\langle 1-12211 \rangle$.

Chapter 4:

page 62, Eq. 4.20, E should be E^5
page 69, Eq. 4.52, insert a "-" after the "=".

Chapter 5:

page 80, The first sentence after Eq. (5.6a) should read "It is not difficult to show that Eq. (5.6a) represents a plane wave moving in the \mathbf{k} direction with wavelength $2\pi/k$, while the corresponding formula with $-T$ replaced by $+T$ gives a wave moving in the $-\mathbf{k}$ direction."
page 89, EQ. 5.50, 5.51, 5.52 and page 90, Eq. 5.53, the subscript "em" should not be in italics.
page 95, Eq. 5.86, the last should be in a larger font

Chapter 6:

page 121, line 9, "Trying" should be "trying"
page 123, line 2, $j > k$ should be $j < k$

Chapter 7:

page 161, end of second paragraph, ϵ_a should be K_a , and change "an integral number" to "a half integral number".

Page 176, Eq. (7.79) should be multiplied by r^2

Page 176, should be $v_r = -(i/m) / r$

page 179, last Reference: "J.B.Keller, Am." should be "J.B.Keller, Ann."

page 179, problem 1, after " $= /2$ ", add "at time $t = 0$ "

Chapter 8:

page 185, the second occurrence of $e^{-E/kT}$ is incorrectly given as $e^{-E/kt}$

page 198, problem 2, in the line labelled (a), move the period at the end of that line to after the end of the equation ($S = \dots$) which follows.

Page 198, problem 2(b), the line after the equation should say "time t " and "constant a ".

Chapter 9:

page 202, Eq. 9.11, add " $/Tr e^{-H}$ "

page 205, In the equation, " dx " should be " dt "

page 211, Eq. 9.23, remove the subscript i from E in $e^{-iEit/}$

page 213, Eq. 9.26, remove the subscript i from E everywhere it appears (four places)

page 214, Eq. 9.27 and also four lines after 9.27, remove the subscript i from E

page 235, after Eq. 10.5, add "Here the anticommutator is defined by $[a,b]_+ = ab+ba$."

Chapter 10:

page 241, Eq. (10.32), put the exponent " i " in italics in both places.

page 241, line 5, "Section 9.2" should be "Section 9.3"

page 242, Eq. (10.34), " i " should be in italics

page 246, line 4 from bottom "phenomena: with" should be "phenomena. With"

Chapter 11:

page 264, Eq. (11.2e), after the second "=", switch " $^+$ " to " $^+$ "

page 267, Eq. (11.16c), add "-" after the $\{$, and change " $(t-t_0)$ " to " $(t-t_0)/$ "

page 268, Eq. 11.20b, add at the end "= 1."

page 280, add " (t) " to the following:

U^{-1} in Eq. (11.64a) (second line)

\sim^{-1} in Eq. (11.64a, third line)

\sim^{-1} in Eq. (11.64c)

page 285, Eq. (11.86), add " \cdot " to the end of the first line of this equation, and " \cdot " to the end of the second line.

page 285, Eq. (11.88): the K 's should be in the same font

page 310, fourth citation in Bibliography, should be: Jones, W. and March, N. H.

Index

page 323, insert after "refractive index 284", "Reiche-Thomas-Kuhn Sum Rule 110"

page 324, insert after "subgroup 33", "sum rule 110"

page 324, under "symmetry relations", Gordon should be Gordan

page 324, "von Neuman" should be "von Neumann"

page 325, under "WKB approximation", 163FF should be 163ff