

Corrections

to the

AMERICAN INSTITUTE OF PHYSICS HANDBOOK

HANDBOOKS as a group possess one unfortunate combination of characteristics. On the one hand, the very nature of their function makes errors and inconsistencies more serious in handbooks than in many other types of publication. On the other, because handbook content is so largely tabular and composed of relatively unrelated sections, mistakes are not as obvious from the context as in publications with greater over-all continuity of thought; thus errors are not as readily recognized in manuscript and proof. In the *American Institute of Physics Handbook*, avoidance of errors and achievement of complete consistency were further complicated by the magnitude of the copy (some 3500–4000 manuscript pages) and the fact that, to speed publication, production was begun on some parts before the entire manuscript had been completed.

Many of the errors are being corrected in the second printing. In order, however, that those individuals who have purchased copies of the first printing not be penal-

ized for their promptness, we plan to publish in *Physics Today* as many errata lists as the mistakes called to the Institute's attention warrant. The first such listing appears below. We shall be most grateful if readers will inform us of other errors they note and will send us any general comments they have on the *Handbook*; such information should be addressed to the American Institute of Physics, 335 East 45th Street, New York 17, N. Y., attention Dwight E. Gray, Coordinating Editor.

For the most part, the corrections given below concern errors of technical fact. No attempt has been made in this list to correct erroneous organizational affiliations of contributors as shown at the beginning of their subsections. The rapid rate at which these changed during preparation of the *Handbook* manuscript made it clear that any revised list of such affiliations would soon be out of date again.

Dwight E. Gray

Corrections

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|---|---|
| v Add to contributors: Evan A. Davis, <i>Westinghouse Electric Corporation</i> , and Floyd A. Firestone, Ph.D., <i>The Journal of the Acoustical Society of America</i> | (3) Change the value of "Second eccentricity e'' " to 0.08226889; it is e'^2 that equals 0.00676817 |
| 2–3 Place a period after "MECHANICS" in the running head on this and the following odd-numbered pages of subsection 2a | 2–113 In equation 2k-17, change $T\Delta$ to T_{Δ}^2 |
| 2–14 In definition of "steradian", change $\frac{1}{4}$ to $\frac{1}{4}\pi$ | 2–115 In Table 2l-1, change the first line in the second column to "8.85 km (314 mb $\ddagger$)"; in the second line below the table, change "Erdkruste" to "Erdkruste"; in the last line on the page, change "Finktionen" to "Funktionen" |
| 2–100 In the list of quantities at the bottom of the page, | 2–116 At the beginning of the first line following the table, change "These properties . . ." to "These proportions . . ." |
| (1) Complete the "Polar radius of curvature" expression to read, $c = a^2/b = 6,399,937$ m | 2–118 In the figure caption, change "(b)" to read "refractive index for sodium light (0.5893 micron) relative to air"; in the last line of the caption change "supercooled" to "undercooled" |
| (2) Change the value of "Eccentricity e " to 0.08199189; it is e^2 that equals 0.00672267 | |

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- 2-119 In fifth line, following LaFond reference, add "(Range — 2° to 30°C, salinity 21 to 38 per mille)"; in the 21st line change "37" to "38"; in the next to last line change "20 per mille" to "21 per mille"
- 2-121 In the third small table, change "C/1,000 decibars" to "°C/1,000 decibars"
- 2-122 In the "N₂" entry of the table, third column, change the superscript "e" to "g"; in the footnote "h" following the table, change "Laitinen" to "Laitinen"
- 2-135 In the first footnote, change "2-111" to "2-211"
- 2-151 In equation 2n-5, change κ to κ_{iso}
- 2-153 In the "240°C" column on the bottom part of the page, change the first value "1.1264" to "1.2264"
- 2-164 In the column headings of Tables 2n-26 and 2n-27, change "10⁶" to "10¹²" in all three cases
- 2-198 In Table 2u-1, change the last figure in the "Ref." column from "8" to "11"
- 2-202 In Table 2v-1, first column, second row, change "kg* hr/m²" to "kg hr/in²"; in the fourth column, second row, change "0.3 316 × 10⁶" to "0.035316 × 10⁶"
- 2-203 In Equation 2v-3, change the term " $-\frac{2}{3}\mu\delta_{ij}e_{kk}$ " to " $-\frac{2}{3}\mu\delta_{ij}e_{kk}$ "
- 2-208 In Equation 2v-14, second part, change "10⁻¹⁵" to "10⁻⁵"
- 2-236 Add following the footnote, "See also subsection 3c-6 'Waves of Finite Amplitude', pp. 3-37 to 3-39"
- 3-37 Add as a footnote to subsection 3c-6 "See also subsection 2z 'Shock Waves', pp. 2-231 to 2-236"
- 3-58 Add as a footnote to Table 3d-2, "See also subsection 2m-8, pp. 2-127 to 2-128"
- 3-104 Change the numerator of Equation 3h-8 from " d^2 " to " πd^2 "
- 3-153 In the "Acoustic" column under "Referents", close parentheses after " P_0 "
- 3-155 In the "Rotational mechanical" column, following the top diagram,
 (1) In first equation change last term $\frac{F_R}{F_R}$
 (2) In third equation change right hand member " $j\omega C_R \hat{F}_R$ " to " $\hat{F}_R/Z_R$ "
- 3-177 Following the list of references, insert "Circuit Theory, see subsection 5b-14, pp. 5-79 to 5-85"

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- 5-95 In equation 5b-268, insert "B²" in the numerator following the bracket
- 5-189 In the first line below Table 5f-9, in the small-type expression for "Mobility", change "t" to "T"
- 5-194 In the references, fourth line from the bottom, change "1AgS(T4)" to "1Ag₂S(T4)"
- 6-3 In about the center of the page, at the end of definition of "Brightness", change "(2.046°K)" to "(2042°K)"
- 6-8 In the thirteenth line from the bottom, change "668 lumens" to "680 lumens"
- 6-9 In the second line, change "(2.046°K)" to "(2042°K)"; in the fifth line of subsection 6a-3, change "(2046°K)" to "(2042°K)"; at the end of the definition for "Least Mechanical Equivalent of Light", change "621 lumens" to "680 lumens"
- 6-46 In Equation 6e-7, middle part, change denominator from "nd" to "2nd"
- 6-53 In the sixth line of subsection 6f-2, change "y" to "y"
- 6-59 In the right-hand column heading of table 6f-6, remove the dagger following "C"
- 6-61 The heading for the fourth column should be the same as for the first, "T, °K"
- 6-63 At the end of the caption for Table 6f-10, change "(Km)" to "(K_{max})"; also remove "Km" from all seven column headings
- 6-118 In Table 6m-3, last column, last entry, change 1.5×10^{-10} to 6×10^{-11}
- 7-9 In the heading for the eighth column, change "g/ton" to "g/metric ton"
- 7-39 In the fifth line from the bottom, change "Table 7f-1" to "Table 7c-1"; add the following statement below the present paragraph: "In general, wavelengths in Table 7f-1 and other tables of this section are wavelengths in standard air for $\lambda > 2,000 \text{ Å}$ and in vacuum for $\lambda < 2,000 \text{ Å}$ "
- 7-162 In equation 7k-2, in the expression for the power to which "e" is raised, change "h" to "h"
- 7-164 In the expression for "a₁", the radius of the first Bohr orbit, which appears about the middle of the page, change "h" to "h²"
- 8-193 In the fifth column, the last entry, change "1,000 cm" to "100 cm"
- 8-194 In the National Bureau of Standards entry, in the seventh column, change "115 in." to "11.5 in."