

Fig. V. Electron angular distribution,

$$\frac{\sigma_0 f(\lambda_0, \lambda)}{2\pi} \frac{(1 + \alpha_0)^2 (1 - \cos \theta)^2}{\cos^3 \psi}, \quad \text{where} \quad \tan \psi = \frac{1}{1 + \alpha_0} \left(\frac{2\alpha_0 \alpha}{\alpha_0 - \alpha} - 1 \right)^{\frac{1}{2}},$$

as a function of ψ , for constant $h\nu_0$.

Fig. VI. Photon energy distribution,

$$\frac{\sigma_0 \lambda^2}{mc^2} f(\lambda_0, \lambda)$$

as a function of $h\nu$, for constant $h\nu_0$.

Fig. VII. Electron energy distribution, same quantity as in VI as a function of T , for constant $h\nu_0$.

Fig. VIIIa. Total Compton cross section and effective cross section as functions of $h\nu_0$, Fig. VIIIb. Fraction of incident energy absorbed as function of $h\nu_0$.

It is stated that all calculations and curves are accurate to 1 per cent, and that the subsidiary graphs are such that interpolated values can be obtained in general to 2 per cent accuracy.

The circular is one of a series of surveys and tabulations of information on radiation physics.

A. E.

TABLE ERRATA

242.—R. S. BURINGTON, *Handbook of Mathematical Tables and Formulas*. 3rd Edition. Handbook Publishers, Inc., Sandusky, Ohio, 1953.

I have recently checked, by differentiation, all of the indefinite integrals in this edition of the *Handbook*. The following errors were discovered. They are also present in the 2nd edition.

- P. 68, no. 146. In the next to the bottom line of the page,
for $(m + np + n)$, read $(m + np + n)a$.
- P. 71, no. 177. In the \tan^{-1} form, insert the restriction: $a > 0, c < 0$.
In the \tanh^{-1} form, insert the restriction: $a > 0, c > 0$.
- P. 71, no. 178. For $+\frac{(ad - bc)^2}{8ac}$, read $-\frac{(ad - bc)^2}{8ac}$.
- P. 73, no. 195. Insert the restriction: $b > 0$.
- P. 75, no. 225. Insert the restriction: $b > 0$.
- P. 75, no. 226. The numerator, -1 , of the coefficient of $\sin^{-1} U$ should be replaced by: $\text{Sgn}(d \cos ax - c \sin ax)$, where $\text{Sgn } z = 1$, for $z > 0$, $= -1$ for $z < 0$, and $= 0$ for $z = 0$.
The expression for U should read:

$$U \equiv \left[\frac{c^2 + d^2 + b(c \cos ax + d \sin ax)}{\sqrt{c^2 + d^2} |b + c \cos ax + d \sin ax|} \right].$$

The final restriction, $-\pi < ax < \pi$, is unnecessary.

- P. 78, no. 258. The restriction should read: $b > 0, b > c, \cos ax > 0$.

Most persons using integral tables are aware of errors, which are common to many tables of integrals, such as the following.

The first type is illustrated by the example: $\int \frac{dx}{x} = \log x$. A correct form for this integral would be $\int \frac{dx}{x} = \log |x|$. In this latter form, negative values of x may be used.

The second type is illustrated by the example: $\int \frac{dx}{\sqrt{a^2 - x^2}} = \sin^{-1} \frac{x}{a}$. This form is not valid for $a < 0$. A form which is valid for all $a \neq 0$ may be obtained from this form by replacing the a by $|a|$.

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243.—E. JAHNKE & F. EMDE, *Tables of Functions*. Fourth Edition, 1945, New York and earlier editions.

On p. 262, for $h_1(0.1) = 6.118$ read $h_1(0.1) = 6.342$.

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Remark: Errors in this volume have been noted earlier in *MTAC* as follows: v. 1, p. 198, 390; v. 2, p. 47, 350; v. 3, p. 41, 314, 364 (review), 423; v. 6, p. 196 (review 990[L]), 237.

240.—See item 2 of the Corrigenda.

NOTES

A Conference on Mathematical Tables

A conference on mathematical tables was held at the Massachusetts Institute of Technology on September 15 and 16, 1954, under the leadership of Professor P. M. MORSE. The following excerpts from his summary will be of interest to readers of *MTAC*. They were written by Professor MORSE.

This conference, under the joint auspices of the National Science Foundation and the Massachusetts Institute of Technology, was held to discuss the needs, in this country, for Tables of Mathematical Functions, in the light of recent developments in high-speed computers. Twenty-eight persons attended the two-day sessions and took part in round-table discussions on the general topics: Future Need for Tables; What Form Should Tables Have?; What Functions Need Tabulating?; and What Should Be Done About It?