

75[7].—D. A. TAGGART & F. W. SCHOTT, *Mathematical Tables of Integrals Involving Spherical Bessel Functions*, Electrical Sciences and Engineering Department, School of Engineering and Applied Science, University of California, Los Angeles, California, ms. of 16 typewritten pp. deposited in the UMT file.

Let $j_n(r)$ be the usual notation for the spherical Bessel function of order n . Herein are given six one-page tables, respectively, of 5S values (in floating-point form) of the integrals:

$$I_1 = \int_0^{r_0} j_t(ar)j_n(br) dr,$$

$$I_2 = \int_0^{r_0} \frac{\partial}{\partial r} [rj_t(ar)] \frac{\partial}{\partial r} [rj_n(br)] dr,$$

$$I_3 = \int_0^{r_0} j_t(ar) \frac{\partial}{\partial r} [rj_n(br)] dr,$$

$$I_4 = \int_0^{r_0} rj_t(ar)j_n(br) dr,$$

$$I_5 = \int_0^{r_0} rj_t(ar) \frac{\partial}{\partial r} [rj_n(br)] dr,$$

$$I_6 = \int_0^{r_0} r^2 j_t(ar)j_n(br) dr.$$

Here $ar_0 = \mu_{np}$, the p th zero of $j_n(ar)$, and p is limited to 1, 2, and 3 throughout the tables. Also, these zeros are tabulated to 4 or 5S.

In the first three tables the orders t and n are restricted to 2 and 4. In Tables 4 and 5, $n = 2$ and 4, whereas $t = 1, 3$, and 5. Finally, in Table 6, $n = 1(1)5$ and $t = 1, 3$, and 5.

In the prefatory text the authors describe the computational procedure followed in the preparation of these tables, including several checks on the accuracy of the results to 5S.

Related tables to which the authors refer are those of Butler & Pohlhausen [1].

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1. T. BUTLER & K. POHLHAUSEN, *Tables of Definite Integrals Involving Bessel Functions of the First Kind*, WADC Technical Report 54-420, Wright Air Development Center, 1954. (See *MTAC*, v. 9, 1955, p. 79, RMT 50.)

76[7].—HENRY E. FETTIS & JAMES C. CASLIN, *A Table of the Complete Elliptic Integral of the First Kind for Complex Values of the Modulus*, Part I, Report ARL 69-0172, Aerospace Research Laboratories, Office of Aerospace Research, United States Air Force, Wright-Patterson Air Force Base, Ohio, December 1969, iv + 298 pp., 27 cm. [Released to the Clearinghouse, U. S. Department of Commerce, Springfield, Virginia 22151.] and