

and the β_n 's are the positive roots of

$$(\alpha_0\alpha_i - \beta^2) \sin \beta + \beta(\alpha_0 + \alpha_i) \cos \beta = 0.$$

The table gives the dimensionless temperature u , where $0 < u < 1$, for the following ranges of parameters

$$x = 0(.01).02(.03).05(.05).3(.1).7(.05).95(.03).98(.01)1$$

$$\tau = .001(.0005).002(.001).008(.002).01(.01).08(.02).1(.1).8(.2)1(1)8(2)10(10)80(20)100(100)800(200)1000$$

$$\alpha_i = .001, .002, .004, .006, .01, .02, .04, .06, .1, .2, .4, .6, 1, 2, 4, 6, 10, 20, 40, 60, 100, 200, 400, 600, 1000.$$

$$\alpha_0 = 0, .001, .004, .01, .04, .1, .4, 1, 4, 10, 40, 100, 400, 1000.$$

The tabular entries are given to five figures, with better than three of the figures being accurate. For the most part, the error appears to be one or two units in the fifth figure.

The table should be very useful to those people who are engaged in design work involving heat transfer, as, for example, rocket nozzle design. The introduction also contains a generalization of the heat conduction problem defined above which can be solved by means of the tables.

The tabular entries are printed with reasonable clarity. There are, however, a few obvious misprints in the introduction.

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17[S].—G. A. BARTHOLOMEW & L. A. HIGGS, *Compilation of Thermal Neutron Capture Gamma Rays*, Report AECL No. 669, 1958, 146 p., 27 cm. Available from Scientific Document Distribution Office, Atomic Energy of Canada Limited, Chalk River, Ontario, Canada. Price \$2.50.

This report presents a compilation of energy, absolute intensities, and spectral distribution of gamma rays produced by capture of thermal neutrons, together with a complete bibliography of information on this subject through June 1, 1958. The results obtained from measurements at the Chalk River Laboratories over several years using the pair spectrometer have been reviewed. These results have been modified where necessary such that all intensity determinations are presented on a uniform basis. The accuracy of pair spectrometer intensity measurements is discussed.

Included in the tables are the energies and intensities (photons per hundred captures) of resolved gamma rays obtained from experiments in which absolute intensities were determined. References to other data not tabulated is also given. Where an appreciable portion of the gamma ray spectrum is unresolved, a spectral distribution curve is given. Most of the curves plot the number of gamma rays per capture per Mev as a function of energy. Results published by the Moscow group are included. A rough measure of accuracy and completeness of the results is given with each tabulation and with most of the curves.

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