

CHAIN AND INDEPENDENT FISSION PRODUCT YIELDS ADJUSTED TO
CONFORM WITH PHYSICAL CONSERVATION LAWS

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The contents of this paper have been examined and recommended by the United Kingdom Chemical Nuclear Data Committee

ABSTRACT

Previously reported chain yields and independent yields for the thermal neutron induced fission of ^{233}U , ^{235}U , ^{239}Pu and ^{241}Pu , the fast neutron induced fission of ^{232}Th , ^{233}U , ^{235}U , ^{238}U , ^{239}Pu , ^{240}Pu and ^{241}Pu , and the 14 MeV neutron induced fission of ^{233}U , ^{235}U and ^{238}U have been adjusted to conform with physical conservation laws and the results listed.

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February 1975

HL75/592(C4)

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1. Introduction

This report describes an extension of a line of work which began with the establishment of a computer based fission product library (Ref. 1), and a means of extracting information from the library (Ref. 2). Thermal neutron induced fission product yields were extracted from the library and assessed (Ref. 3,4) followed by a similar assessment for fast neutron induced fission product yields (Ref. 5); lastly the known independent yields were extracted from the library and assessed (Ref. 6).

All these results were obtained by treating experimental results and in the case of independent yields the known values were used as the basis for the calculation of those which were not known. The end products in all cases were the best that could be deduced from experiment. It is known that the experimentally determined yields must also obey physical conservation laws (Ref. 7,8,9,10), and this report describes a method of adjusting the yields to conform with them.

The adjusted fission product yields will be found in Tables 1-14, the fractional independent yields in tables 15-17.

2. Discussion

From the definition of chain yields the total number of fission fragments is equal to twice the number of fissions

$$\sum Y(A) = 2 \quad (1)$$

where $Y(A)$ is the adjusted chain yield of fission products of mass A expressed in fractional form. The fission process does not involve the annihilation of nucleons so that there are as many nucleons after fission as there were before so that

$$\sum Y(A) \cdot A = A_f \cdot 1 - \bar{\nu}_T \quad (2)$$

where A is the mass number of the decay chain, A_f is the mass number of the fissile isotope, the f stands for the neutron causing fission and $\bar{\nu}_T$ is the total number of neutrons emitted during and after fission. It should be noted that (2) is a number balance and not a mass balance.

Since no nucleons are destroyed protons are conserved so that

$$\sum Y(A) \cdot Z(A) = Z_f \quad (3)$$

where

$$\bar{Z}(A) = \frac{\sum Z_F Y(A, Z)}{Z} \quad (4)$$

$FIY(A, Z)$ is the fractional independent fission yield of nuclide mass A , atomic number Z ; Z_F is the atomic number of the fissile nuclide and $\bar{Z}(A)$ is the mean atomic number of the independent yields of mass A . Since the atomic numbers of complementary fission fragments must add up to Z_F (i.e. no protons are lost),

$$\sum_A FIY(A, Z) \cdot Y(A) = \sum_A FIY(A', Z_F - Z) \cdot Y(A') \quad (5)$$

i.e. the total yield of the isotopes of atomic number Z summed over all masses A , is equal to the total yield of isotopes of atomic number ($Z_F - Z$) summed over all masses A' .

As equation (4) and (5) are both based on proton conservation it would be expected that one might be derived from the other. This is indeed so and Appendix 1 sets out the derivation of (5) from (4).

The problem now is to adjust the observed chain yields $y(A)$, that taken with the adjusted independent yields they obey (1)-(5). It would seem a priori to be desirable that the adjustment of a given chain yield should be dependent on its magnitude and the accuracy with which it is known.

The adjustment chosen was

$$Y(A) = y(A) (a + \beta y(A) \cdot \sigma(A)) \quad (6)$$

(where

$Y(A)$ is the adjusted chain yield for mass A ,

$y(A)$ is the observed chain yield for mass A ,

$\sigma(A)$ is the standard deviation of $y(A)$ expressed as a fraction of $y(A)$ and a , β are constants);

which appears to satisfy the a priori requirements.

There is apparently no objective way of choosing the method of adjustment and equation 6 is a subjective choice. Meek and Rider (Ref. 14), use the correction

$$Y(A) = y(A) + \frac{(200.0 - \sum_A y(A))^2}{A} \cdot \text{Var } y(A)/2 \cdot \text{Var } y(A)$$

for the chain yield of mass number A . (Note that here $\text{Var } (\sum_A y(A)) = \sum_A \text{Var } y(A)$ assuming that the observed chain yields are not correlated, i.e. the variance of the sum of the observed yields is identically equal to the sum of the variances of the individual chain yields.)

Possibly the only objection which can be raised to this choice of adjustment is that for a given reaction the adjustments are all positive or all negative depending on the sign of $[200.0 - \sum_A y(A)]$. It would be expected that of the adjustments to individual chain yields some would be positive and some negative for an additive adjustment, or some greater than unity and some less than unity for a multiplication adjustment. Equation 6 is an adjustment which conforms to these expectations.

Then from (1) above

$$\alpha Y(A) + \beta Z\sigma(A) \cdot y^2(A) = 2 \quad (7)$$

and from (2)

$$\alpha Y(A) \cdot A + \beta Z\sigma(A) \cdot y^2(A) \cdot A = \bar{A} \quad (8)$$

where

$$\bar{A} = A_F + 1 - \bar{V}_T$$

$$\text{Then if } p = \sum y(A), q = \sum \sigma(A) \cdot y^2(A), r = \sum y(A) \cdot A, s = \sum \sigma(A) \cdot y^2(A) \cdot A$$

$$\alpha = (2s - \bar{A}q)/(ps - rq) \quad (9)$$

$$\beta = (2r - \bar{A}p)/(rq - ps) \quad (10)$$

The test is then to apply (3) in the form

$$\theta \cdot Z \cdot y(A) \cdot \bar{Z}(A) = Z_F \quad (11)$$

when θ should be found = 1.

Also (5) should apply and the sums of the independent yields of complementary atomic numbers should be equal.

It would, of course, be possible to fit the experimentally found chain and independent yields to the constraints represented by (1), (2), (3) and (5), but it was found in practice that if the chain yields were adjusted to comply with (1) and (2) then θ in (11) was found to be a number very close to 1; the actual values together with the total yield of complementary elements are given later (see Tables 18, 19).

Further tests are possible and they are described in the Appendix. The results of these tests are equally satisfactory, but the size of the errors involved indicates that in further work it may be wiser to fit by least squares all the constraints simultaneously.

3. Method

(a) Chain yields

The starting points for the adjustments, which were made by a computer program, were the chain yields of Refs. 3 and 5. Gaps in the mass versus yield tables in the

mass range 72-161 were filled in the case of thermal yields by semi-logarithmic interpolation. For fast fission chain yields of ^{232}Th , ^{235}U and ^{239}Pu semi-logarithmic interpolation was used, but for ^{233}U and ^{238}U the extensive gaps in the data made this impossible and the predictions of Ref. 10 were used. The fast fission chain yields for ^{240}Pu and ^{241}Pu have not been determined and the predictions of Ref. 10 were used assigning an uncertainty of $\pm 15\%$ (10) to all values. The method used in Ref. 10 to predict chain yields is also described in Ref. 15.

There are experimental chain yields available for 14 MeV fission of ^{232}Th , ^{233}U , ^{235}U and ^{238}U and the gaps were filled by semi-logarithmic interpolation. In the case of ^{232}Th the adjustment process failed, giving some negative yields; this was also the case when Flynn and Glendenin's (Ref. 12), interpolated values were used. Presumably the available experimental results do not define the mass versus yield curve well enough, certainly the trough and the sides of the heavy fragment peak are not well covered by the experimental points.

With these chain yields and the \bar{v}_T values recommended by M. F. James (Ref. 11), see Table 20, the values of α and θ were computed using (7) and (8), and the adjustments derived therefrom were applied to the chain yields. The results are displayed in Tables I-14, in which the adjusted yields (as percentages), are given for each mass number, along with the uncertainties (± 10 as percentages i.e. as coefficients of variation), carried over from Ref. 3 and 5, and the adjustment factors in fractional form.

(b) Fractional independent yields

The calculated fractional independent yields of Table 13, Ref. 6, were first corrected for the odd-even Z effect. For a given mass number and fissile nuclide the calculated independent yields for each Z value were multiplied by the appropriate odd-even Z factors given in Ref. 6 for thermal and fast fission, and the sum over all the Z values for given mass number and fissile element, was found. Each independent yield in the sum was then divided by the sum so that the resulting values added to 1,000. The factor θ in (11) was then computed using the adjusted chain yield. For 14 MeV fission the calculated independent yields of Table 13, Ref. 6, were first recalculated using the Z_p values given in Ref. 6 for ^{232}Th and ^{238}U . There are no odd-even Z effects to allow for and the proton balance factor θ in (11) was calculated directly. Incidentally the fact that 14 MeV fission is energetic enough to smooth out the odd-even Z effects is independently confirmed by Nethaway (Ref. 13).

A summary of these operations is given in Table 18, and the independent yields in fractional form are set out in Tables 15-17.

(c) Yields of complementary elements

It is clear that as no protons are destroyed in the fission process the two fission fragments of each fission must possess atomic numbers that add up to Z_F , thus the number of fission fragments of atomic number Z must be equal to the number of fission fragments of atomic number $(Z_F - Z)$. Of course this statement refers to fragments before any decay and it ignores the production of very light particles which occur in a very small proportion of fissions. A test of the calculated independent yields and the adjusted chain yields is thus to demonstrate that they lead to the equality of the total yields of the complementary elements on application of (5). This is done in Table 19 which sets out the total elemental yields together with the standard deviation deriving from the errors in the adjusted yields. The uncertainties in the elemental total yields must be greater than these since the calculated independent yields are subject to considerable errors (Ref. 6). Indeed, any disagreement between the total complementary element yields greater than would be expected to arise from the chain yield uncertainties, may be taken as a measure of the uncertainty of the calculated independent yields, but doing this one must take into account the smoothing action of the summation, and also the large range of magnitudes of the individual yields. Further tests are described in Appendix 1 and the results of these are given in Table 18.

4. Conclusion

A method of adjusting fission product yields (both chain and independent), to conform with physical conservation laws has been found and used to produce a set of adjusted chain yields for thermal, fast and 14 MeV fission. Calculated independent yields have then been corrected for odd-even Z effects and adjusted to conform with proton conservation using the adjusted chain yields. Finally the sums of the independent yields of the complementary elements have been calculated for comparison. Departure from equality indicates the uncertainty in the independent yields, and further tests indicate that the differences are probably consistent with the errors involved. However, in future work it would probably be better to fit all the required parameters simultaneously rather than piecemeal.

Acknowledgments

I am indebted to B. F. Rider of Vallecitos Nuclear Centre, General Electric Company, California, U.S.A., for informing me of errors in the fission product library upon which

this work is based; also to M. F. James of the U.K.A.E.A., Winfrith, who suggested the basis of the tests of the adjustments and the \bar{v}_T values used herein.

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APPENDIX 1

The relation of equations (3) and (5)

Starting with the L.H.S. of (3) which is the sum of all (yield of chain mass A) \times (average atomic number of that chain), and substituting from (4) for $\bar{Z}(A)$

$$\sum_A Y(A) \cdot \bar{Z}(A) = \sum_A Y(A) \cdot Z \cdot FIY(A, Z)$$

Then it will be seen that the resulting expression may be summed in two ways (e.g. by writing down the array of nuclides formed in fission in the manner of the 'Nuclide Chart'),

(a) along a chain of given mass A summing the products $Z \times FIY(A, Z)$ for each Z and finally multiplying the total by $Y(A)$; then repeating for all mass numbers.
or (b) along a chain of given atomic numbers Z and summing the products $Y(A) \times FIY(A, Z)$ and finally multiplying by Z; then repeating for all atomic numbers i.e. for all elements.
Thus

$$\begin{aligned} \sum_A Y(A) \cdot Z \cdot FIY(A, Z) &= \sum_A Z \cdot FIY(A, Z) \cdot Y(A) \\ &= \sum_Z y(Z) \cdot Z \end{aligned}$$

where $y(Z)$ is the yield of element atomic number Z = $\sum_A Y(A) \cdot FIY(A, Z)$

Then let $\Delta y(Z) = y(Z) - y(Z_F - Z)$, and for even Z_F

$$\sum_A Y(A) \cdot \bar{Z}(A) = \sum_Z Z \cdot y(Z)$$

$$= \left\{ \sum_{Z \geq 1} \left(\frac{Z_F}{2} + z \right) \cdot y \left(\frac{Z_F}{2} + z \right) \right\} + \frac{Z_F}{2} \cdot y \left(\frac{Z_F}{2} \right) + \left\{ \sum_{Z \geq 1} \left(\frac{Z_F}{2} - z \right) \cdot y \left(\frac{Z_F}{2} - z \right) \right\}$$

(for odd Z_F there is a similar expression)

$$= \sum_{\text{all } Z} \frac{Z_F}{2} \cdot y \left(\frac{Z_F}{2} + z \right) + \sum_{Z \geq 1} z \cdot \Delta y \left(\frac{Z_F}{2} + z \right)$$

$$= \frac{Z_F}{2} \sum_z y \left(\frac{Z_F}{2} + z \right) + \sum_{Z \geq 1} z \cdot \Delta y \left(\frac{Z_F}{2} + z \right)$$

From the definition of $y(Z)$

$$\sum_Z y(Z) = \sum_Z \sum_A Y(A) \cdot FIY(A, Z) = 2 \quad \text{since } \sum_Z FIY(A, Z) = 1 \text{ and } \sum_A Y(A) = 2$$

Hence $\sum_A Y(A) \cdot \bar{Z}(A) = Z_F + \sum_{Z>1} Z \cdot \Delta y \left(\frac{Z_F}{2} + Z \right)$ App. 1.1

But if (5) is true for all Z $\Delta y(Z) = 0$ by definition and

$$\sum_A Y(A) \cdot \bar{Z}(A) = Z_F$$

which is equation (3).

APPENDIX 2

From (11) $\sum_A Y(A) \cdot \bar{Z}(A) = \frac{Z_F}{\theta}$

$$= Z_F + \sum_{Z>1} Z \cdot \Delta y \left(\frac{Z_F}{2} + Z \right) \text{ from App. 1.1}$$

Then (say) $\phi = (\frac{1}{\theta} - 1) Z_F \times 100 = \sum_{Z>1} Z \cdot \Delta y \left(\frac{Z_F}{2} + Z \right)$ (The 100 is due to a change from fractional to percentage yields). ϕ should be 0 as θ should be 1, and

$$\text{Var}(\phi) = \sum_{Z>1} Z^2 \cdot \left\{ \text{Var } y \left(\frac{Z_F}{2} + Z \right) + \text{Var } y \left(\frac{Z_F}{2} - Z \right) \right\}$$

(and it is assumed that the uncertainties in the yields of elements are uncorrelated).

Hence the values of ϕ and $\text{Var } \phi$ can be computed, the former from θ and the latter from the standard deviations of the complementary element yields as given in Table 19. ϕ and $(\text{Var } \phi)^{\frac{1}{2}}$ are given in Table 18 and it can be seen that in general ϕ is a good estimate of 0 when compared with the standard deviation as estimated. Note that the uncertainties of Table 19 contain only the errors propagated from those of chain yields; it would seem likely that if the uncertainties of the independent yields were included even the 14 MeV results might be judged as supporting the hypothesis that $\phi = 0$. By the methods used in this paper the uncertainties in the independent yields are not well known and in future work it would seem better to fit all the parameters simultaneously by least squares.

APPENDIX 3

Further test by considering decay energies

The total decay energy E_d depends on the average chain length for β -decay, ΔZ so that

$$E_d \propto (\Delta Z)^2$$

very roughly. For a given set of yields in a decay heat calculation the calculated atomic number of the initial fragment is

$$\frac{1}{2} \cdot \Sigma Y(A) \bar{Z}(A) = \frac{1}{2} \cdot \frac{Z_F}{\theta} \text{ from (11)}$$

The true value is $\frac{Z_F}{2}$ so the error in the chain length is

$$\delta(\Delta Z) = \frac{1}{2} Z_F \left(\frac{1}{\theta} - 1 \right) = \phi/200$$

Hence $\frac{\delta E_d}{E_d} = \frac{2 \delta(\Delta Z)}{\Delta Z} = (\phi/100)/\Delta Z$ and in %ge terms

$$\epsilon \text{ (say)} = \frac{\delta E_d}{E_d} \times 100 = \phi/\Delta Z$$

The values of ϵ are given in Table 18; they are obtained by dividing ϕ by $\Delta Z = \frac{n\beta}{2}$ where $n\beta$ is the mean number of β -decays per fission as given in Ref. 7 and Ref. 8, and is not corrected for the effects of fission energy. The accuracy of ΔZ is stated (loc.cit) to be about $\pm 1\%$ for ^{233}U and ^{235}U thermal fission and it will of course be greater than this for reactions the yields of which are less well known. ϵ as given in Table 18 is thus a rough estimate of the error which would occur if the yields of a reaction given in the tables of this paper were used to calculate the total decay energy for the reactions, and roughly its accuracy may be judged using var ϕ and var ΔZ as given above.

TABLE I. ADJUSTED THERMAL FISSION YIELDS FOR ^{233}U .

MASS	CHAIN YIELD	CYFF. OF VAR.	FACTR. OF VAR.	MASS	CHAIN YIELD	CYFF. OF VAR.	FACTR. OF VAR.	MASS	CHAIN YIELD	CYFF. OF VAR.	FACTR. OF VAR.
72	0.687E-03	0.150E+02	0.125E+01	73	0.137E-02	0.150E+02	0.125E+01	74	0.287E-02	0.150E+02	0.125E+01
75	0.586E-02	0.150E+02	0.125E+01	76	0.118E-01	0.150E+02	0.125E+01	77	0.249E-01	0.150E+02	0.125E+01
78	0.497E-01	0.150E+02	0.125E+01	79	0.988E-01	0.150E+02	0.125E+01	80	0.207E+00	0.150E+02	0.125E+01
82	0.397E+00	0.120E+02	0.120E+01	83	0.699E+00	0.150E+02	0.115E+01	83	0.131E+01	0.400E+01	0.120E+01
85	0.211E+01	0.420E+01	0.117E+01	85	0.247E+01	0.700E+01	0.107E+01	86	0.340E+01	0.400E+01	0.111E+01
88	0.385E+01	0.700E+01	0.920E+01	88	0.616E+01	0.200E+01	0.113E+01	89	0.554E+01	0.500E+01	0.905E+00
90	0.610E+01	0.400E+01	0.964E+00	91	0.722E+01	0.200E+01	0.110E+01	92	0.682E+01	0.300E+01	0.102E+01
93	0.714E+01	0.300E+01	0.101E+01	94	0.693E+01	0.300E+01	0.102E+01	95	0.562E+01	0.500E+01	0.897E+00
96	0.609E+01	0.300E+01	0.103E+01	97	0.521E+01	0.500E+01	0.936E+00	98	0.438E+01	0.700E+01	0.837E+00
98	0.548E+01	0.300E+01	0.103E+01	100	0.198E+01	0.160E+02	0.440E+00	101	0.355F+01	0.300E+01	0.114E+01
102	0.270E+01	0.300E+01	0.117E+01	103	0.157E+01	0.150E+02	0.977E+00	104	0.121F+01	0.300E+01	0.121E+01
106	0.325E+00	0.300E+01	0.124E+01	107	0.129F+00	0.150E+02	0.123E+01	107	0.129F+00	0.150E+02	0.123E+01
108	0.604E+00	0.150E+02	0.123E+01	109	0.645E-01	0.150E+02	0.124E+01	110	0.399E-01	0.150E+02	0.124E+01
111	0.249E-01	0.700E+01	0.125E+01	112	0.162F-01	0.900E+01	0.125E+01	113	0.174F-01	0.150E+02	0.125E+01
114	0.187E-01	0.150E+02	0.125E+01	115	0.237E-01	0.150E+02	0.125E+01	116	0.192F-01	0.150E+02	0.125E+01
117	0.187E-01	0.730E+01	0.125E+01	118	0.197E-01	0.730E+01	0.125E+01	119	0.187F-01	0.700E+01	0.125F+01
121	0.249F-01	0.150F+02	0.125E+01	121	0.249F-01	0.150F+02	0.125E+01	122	0.237F-01	0.600E+01	0.125E+01
123	0.298E-01	0.150E+02	0.124E+01	124	0.387F-01	0.500E+01	0.125E+01	125	0.143E+00	0.110F+02	0.123F+01
126	0.316E+00	0.150E+02	0.123E+01	127	0.678E+00	0.150E+02	0.115E+01	128	0.112F+01	0.150E+02	0.107F+01
129	0.157E+01	0.150F+02	0.977E+00	130	0.203F+01	0.150F+02	0.844E+00	131	0.411F+01	0.200E+01	0.117E+01
132	0.443E+01	0.600F+01	0.925E+00	133	0.657F+01	0.200E+01	0.112E+01	134	0.640F+01	0.200E+01	0.104E+01
135	0.612E+01	0.300F+01	0.105E+01	135	0.594F+01	0.500F+01	0.872E+00	137	0.638F+01	0.300E+01	0.104E+01
139	0.625E+01	0.300F+01	0.105E+01	139	0.645F+01	0.300F+01	0.104E+01	140	0.655F+01	0.300E+01	0.104E+01
141	0.514E+01	0.520E+01	0.834E+00	142	0.629F+01	0.400F+01	0.9525E+00	143	0.613F+01	0.300E+01	0.105F+01
144	0.572E+01	0.490E+01	0.105E+01	145	0.385E+01	0.300F+01	0.113F+01	146	0.287E+01	0.300E+01	0.117E+01
147	0.265E+01	0.600F+01	0.113E+01	148	0.148E+01	0.400E+01	0.119E+01	149	0.945F+00	0.300E+01	0.122E+01
150	0.622E+00	0.200F+01	0.124E+01	151	0.419F+00	0.300E+01	0.124E+01	152	0.245F+00	0.400E+01	0.124E+01
153	0.122E+00	0.130F+02	0.123E+01	154	0.574E-01	0.300E+01	0.125E+01	155	0.288F-01	0.150E+02	0.124E+01
156	0.142E-01	0.100E+02	0.125E+01	157	0.836E-02	0.100E+02	0.125E+01	158	0.293F-02	0.150F+02	0.125E+01
159	0.114E-02	0.100F+02	0.125E+01	160	0.397E-03	0.150E+02	0.125E+01	161	0.150F-03	0.100E+02	0.125E+01

SUM OF YIELDS = C.203E+03
ALPHA = -0.1245E+01
BETA = -0.1123D+03

SEE TEXT EQUATIONS 6,7 AND 8.
SEE TEXT EQUATIONS 6,7 AND 9.

TABLE 2. ADJUSTED THERMAL FISSION YIELDS FOR 235U.

MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR
72	1.145E-14	0.153E+02	0.993E+00	73	0.993E-04	0.153E+02	0.993F+00	74	0.337E-03	0.150E+02	0.993F+00
75	0.923E-03	0.150E+02	0.993E+00	76	0.258E-02	0.150E+02	0.993E+00	77	0.804E-02	0.110E+02	0.993F+00
78	0.197E-01	2.112E+02	0.993E+00	79	0.531E-01	0.150E+02	0.993F+00	80	0.195E+00	0.150E+02	0.993F+00
81	0.229E+00	0.110E+02	0.993E+00	82	0.331E+00	0.150E+02	0.993E+00	83	0.512E+00	0.400E+01	0.994E+00
84	0.954E+00	0.700E+01	0.993E+00	85	0.129E+01	0.300E+01	0.995F+00	86	0.189E+01	0.700E+01	0.100E+01
87	0.264E+01	0.500E+01	0.100E+01	88	0.370E+01	0.500E+01	0.100E+01	89	0.475F+01	0.140E+01	0.996E+00
90	0.654E+01	0.110E+02	0.103E+01	91	0.590E+01	0.200F+01	0.999E+00	92	0.593F+01	0.100E+01	0.996F+00
93	0.634E+01	0.300E+01	0.100E+01	94	0.6471F+01	0.200F+01	0.100F+01	95	0.645E+01	0.200E+01	0.100F+01
96	0.523F+01	0.200E+01	0.100E+01	97	0.597E+01	0.250E+01	0.100F+01	98	0.575F+01	0.200E+01	0.999E+00
99	0.611E+01	0.450E+01	0.995F+00	100	0.626E+01	0.300F+01	0.100E+01	101	0.508E+01	0.500E+01	0.101F+01
102	0.417E+01	0.100E+01	0.975E+00	103	0.304E+01	0.600F+01	0.100F+01	104	0.191E+01	0.300F+01	0.996F+00
106	0.953E+00	0.400E+01	0.995E+00	107	0.388E+00	0.120E+02	0.995F+00	107	0.165E+00	0.150E+02	0.994E+00
109	0.694E-01	0.300E+01	0.973E+00	109	0.298E-01	0.300F+01	0.993F+00	110	0.194E-01	0.150E+02	0.993F+00
111	0.168E-01	0.100E+01	0.993E+00	112	0.847E-02	0.100F+01	0.993F+00	113	0.854E-02	0.150E+02	0.993E+00
114	0.893E-01	0.100E+02	0.993E+00	115	0.945E-03	0.140F+02	0.993E+00	116	0.943E-02	0.150E+02	0.993F+00
117	0.963E-02	0.100E+02	0.993E+00	118	0.293E-02	0.150E+02	0.993E+00	119	0.106E-01	0.150E+02	0.993F+00
120	0.119E-01	0.100E+02	0.993E+00	121	0.119E-01	0.100F+01	0.993E+00	122	0.129E-01	0.150F+02	0.994E+00
123	0.195E-01	0.200E+01	0.993E+00	124	0.169E-01	0.150E+02	0.993F+00	125	0.294E-01	0.100E+01	0.993F+00
125	0.168E-01	0.100E+02	0.993E+00	127	0.249E-00	0.150F+02	0.993E+00	128	0.493E+00	0.150E+02	0.997E+00
129	0.170E+01	0.100E+02	0.993E+00	130	0.202E+01	0.150F+02	0.101F+01	131	0.244E+01	0.200E+01	0.996F+00
132	0.424E+01	0.100E+02	0.993E+00	133	0.668E+01	0.500E+00	2.994E+00	134	0.774E+01	0.100F+01	0.997E+00
135	0.655E+01	0.700F+01	0.102E+01	136	0.645E+01	0.200E+01	0.100F+01	137	0.625F+01	0.100F+01	0.996F+00
138	0.581E+01	0.250F+01	0.100E+01	139	0.644E+01	0.200E+01	0.100F+01	140	0.628F+01	0.500F+00	0.996E+00
141	0.571E+01	0.300E+01	0.100E+01	142	0.585E+01	0.100E+01	0.996F+00	143	0.589F+01	0.200F+01	0.999E+00
144	0.554E+01	0.200E+01	0.999E+00	145	0.395E+01	0.100F+01	0.995E+00	146	0.294E+01	0.150E+01	0.995E+00
147	0.216E+01	0.400E+01	0.997E+00	148	0.168E+01	0.100F+01	0.994E+00	149	0.101F+01	0.600F+01	0.996F+00
150	0.632E+00	0.100F+01	0.993E+00	151	0.407E+00	0.200F+01	0.993F+00	152	0.232E+00	0.500F+01	0.993F+00
153	0.149E+00	0.300E+01	0.993E+00	154	0.647E-01	0.800E+01	0.993E+00	155	0.292E-01	0.500E+01	0.993F+00
156	0.149E+01	0.150E+02	0.993E+00	157	0.672E-02	0.100E+02	0.993E+00	158	0.199E-02	0.150E+02	0.993E+00
159	0.100E-02	0.800E+01	0.993E+00	160	0.258E-03	0.150E+02	0.993F+00	161	0.797E-04	0.700E+01	0.993E+00

SUM OF YIELDS = 0.2000E+03

SEE TEXT EQUATIONS 6.7 AND 8.

SEE TEXT EQUATIONS 6.7 AND 8.

TABLE 2. ADJUSTED THERMAL FISSION YIELDS FOR 235U.

SEE TEXT EQUATIONS 6.7 AND 8.

SEE TEXT EQUATIONS 6.7 AND 8.

ALPHA = 0.99260+00

BETA = 0.55760+01

SEE TEXT EQUATIONS 6.7 AND 8.

SEE TEXT EQUATIONS 6.7 AND 8.

TABLE 3. ADJUSTED THERMAL FISSION YIELDS FOR 239PU.

SEE TEXT EQUATIONS 6.7 AND 8.

SEE TEXT EQUATIONS 6.7 AND 8.

TABLE 3. ADJUSTED THERMAL FISSION YIELDS FOR 239PU.

SEE TEXT EQUATIONS 6.7 AND 8.

SEE TEXT EQUATIONS 6.7 AND 8.

MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR
72	0.885E-04	0.150E+02	0.835E+00	73	0.209E-03	0.150F+02	0.804E+00	74	0.475E-03	0.150E+02	0.805F+00
73	0.105E-02	0.150F+02	0.835E+00	76	0.241F-02	0.150F+02	0.805F+00	77	0.572E-02	0.100F+02	0.805F+00
78	0.210E-01	0.100E+02	0.836E+00	79	0.291E-01	0.150E+02	0.809E+00	80	0.651F-01	0.150E+02	0.814F+00
81	0.149E+00	0.100E+02	0.836E+00	82	0.267E+00	0.150E+02	0.832E+00	83	0.239E+00	0.300E+01	0.911F+00
84	0.392E+00	0.400F+01	0.817E+00	85	0.464E+00	0.600F+01	0.830E+00	86	0.665F+00	0.100E+02	0.864E+00
87	0.832E+00	0.700F+01	0.857E+00	88	0.119E+01	0.700E+01	0.878F+00	89	0.141E+01	0.300E+01	0.843E+00
90	0.465E+01	0.500F+01	0.885E+00	91	0.218E+01	0.400E+01	0.881E+00	92	0.256E+01	0.200E+01	0.851E+00
93	0.3338E+01	0.200E+01	0.885E+00	94	0.399E+01	0.200E+01	0.873E+00	95	0.487E+01	0.500F+01	0.994F+00
96	0.449E+01	0.200E+01	0.883E+00	97	0.517E+01	0.300E+01	0.933E+00	98	0.692F+01	0.100E+02	0.124E+00
102	0.672E+01	0.700F+01	0.113E+01	103	0.638E+01	0.700F+01	0.110F+01	104	0.714E+01	0.800E+01	0.118F+01
105	0.672E+01	0.100F+02	0.123E+01	106	0.407E+01	0.400E+01	0.939E+00	107	0.732E+01	0.900E+01	0.122F+01
108	0.170E+01	0.150E+02	0.100E+01	109	0.914E+00	0.500F+01	0.946E+00	110	0.459E+00	0.150E+02	0.112E+01
111	0.212E+00	0.500E+01	0.915E+01	112	0.759E-01	0.400E+01	0.907E+00	113	0.528E-01	0.150E+02	0.124E+00
114	0.421E-01	0.130E+02	0.913E+01	115	0.300E-01	0.110E+02	0.809E+00	116	0.307E-01	0.150E+02	0.809E+00
117	0.315E-01	0.150E+02	0.872E+00	118	0.315E-01	0.150E+02	0.809E+00	119	0.324E-01	0.150E+02	0.862E+00
120	0.343E-01	0.150E+02	0.839E+00	121	0.341E-01	0.150E+02	0.809E+00	122	0.327E-01	0.300F+01	0.973E+00
123	0.470E-01	0.120E+01	0.923E+00	124	0.635E-01	0.150E+02	0.129E+00	125	0.716F-01	0.600E+01	

TABLE 4. ADJUSTED THERMAL FISSION YIELDS FOR 241PU.

WKS	CHAIN YIELD	COEFF. OF VAR.	FACTR.	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTR.	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR
74	0.877E-02	0.150E+02	0.122E+01	79	0.193F-01	0.150E+02	0.102E+01	80	0.347E-01	0.150E+02	0.102E+01
81	0.62E-01	0.150E+02	0.122E+01	82	0.107E+00	0.150E+02	0.102E+01	83	0.205E+00	0.300E+01	0.102E+01
84	0.34CE+00	0.120E+01	0.122E+01	85	0.394F+00	0.100E+02	0.102E+01	86	0.611F+00	0.100E+02	0.102E+01
87	0.7E+3E+00	0.100E+01	0.102E+01	88	0.969F+00	0.100F+02	0.102F+01	89	0.120E+01	0.150E+02	0.101E+01
90	0.15E+F+01	0.100E+02	0.121F+01	91	0.179F+01	0.500F+01	0.102F+01	92	0.225E+01	0.100F+02	0.101E+01
93	0.292E+01	0.100E+02	0.131E+01	94	0.335F+01	0.100F+02	0.101E+01	95	0.405F+01	0.400F+01	0.101E+01
96	0.434E+01	0.100E+02	0.130E+01	97	0.482E+01	0.300E+01	0.101E+01	98	0.543E+01	0.150E+02	0.987E+00
99	0.422F+01	0.300F+01	0.101E+01	100	0.590F+01	0.150F+02	0.984E+00	101	0.592F+01	0.100E+02	0.996E+00
102	0.626E+01	0.130E+02	0.99E+00	103	0.647F+01	0.150E+02	0.980E+00	104	0.675F+01	0.100E+02	0.993E+00
105	0.67E+01	0.150E+02	0.93E+00	106	0.605E+01	0.100E+02	0.995E+00	107	0.509E+01	0.150E+02	0.989E+00
108	0.7E+01	0.150E+02	0.93E+00	109	0.291F+01	0.150F+02	0.100E+01	110	0.142E+01	0.150F+02	0.101E+01
111	0.413E+01	0.150E+02	0.905E+00	112	0.326E+00	0.150E+02	0.102E+01	113	0.150F+00	0.150E+02	0.102E+01
114	0.62CE+01	0.150E+02	0.102E+01	115	0.377F-01	0.110F+02	0.102F+01	116	0.336F-01	0.150E+02	0.102E+01
117	0.612E+01	0.150E+02	0.122E+01	118	0.206F-01	0.157F+02	0.102E+01	119	0.296E-01	0.150E+02	0.102E+01
120	0.246F+01	0.150E+02	0.122E+01	121	0.306F-01	0.150E+02	0.102E+01	122	0.316F-01	0.150E+02	0.102E+01
123	0.324E+01	0.150E+02	0.132E+01	124	0.367E-01	0.150E+02	0.102E+01	125	0.428E-01	0.150F+02	0.102E+01
126	0.162E+01	0.150E+02	0.122E+01	127	0.214F+00	0.150E+02	0.102F+01	128	0.417E+00	0.150E+02	0.102F+01
129	0.822E+00	0.150E+02	0.101E+01	130	0.167E+00	0.150F+02	0.101E+01	131	0.319E+01	0.300E+01	0.102F+01
132	0.46E+F+01	0.500E+01	0.101E+01	133	0.672E+01	0.300F+01	0.101E+01	134	0.807E+01	0.300F+01	0.101E+01
135	0.712E+01	0.500E+01	0.101E+01	136	0.70PE+01	0.500F+01	0.101E+01	137	0.660F+01	0.300F+01	0.101E+01
138	0.642E+01	0.300E+01	0.101E+01	139	0.619F+01	0.150F+02	0.982E+00	140	0.560E+01	0.300E+01	0.101F+01
141	0.448E+01	0.300E+01	0.101E+01	142	0.484F+01	0.300F+01	0.101F+01	143	0.446E+01	0.300F+01	0.101E+01
144	0.416E+01	0.200E+01	0.102E+01	145	0.319E+01	0.200F+01	0.102E+01	146	0.270F+01	0.200F+01	0.102F+01
147	0.273E+01	0.300E+01	0.102E+01	148	0.190E+01	0.200E+01	0.102E+01	149	0.10E+01	0.300E+01	0.102E+01
150	0.118E+01	0.400E+01	0.102E+01	151	0.919F+00	0.600F+01	0.102E+01	152	0.755E+00	0.400E+01	0.102E+01
153	0.35CE+00	0.400E+01	0.102E+01	154	0.346F+00	0.500E+01	0.102E+01	155	0.235E+00	0.900F+01	0.102E+01
156	0.171E+00	0.500CF+01	0.102E+01	157	0.133E+00	0.500E+01	0.102E+01	158	0.876E-01	0.150E+02	0.102E+01
159	0.471F-01	0.500E+01	0.102E+01	160	0.245F-01	0.150E+02	0.102E+01	161	0.830F-02	0.500E+01	0.102E+01

SUM OF YIELDS = C.2000E+03
ALPHA = 0.1020D+01
BETA = -0.3957D+01

SEE TEXT EQUATIONS 6,7 AND 8.
SEE TEXT EQUATIONS 6,7 AND 8.

TABLE 5. ADJUSTED FAST FISSION YIELDS FOR 232TH.

MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR
72	0.963E-04	0.130E+02	0.708E+00	73	0.248E-03	0.300E+02	0.708E+00	74	0.708E-03	0.100E+02	0.708E+00
75	0.135E-02	0.100E+02	0.708E+00	76	0.283E-02	0.100E+02	0.708E+00	77	0.780E-02	0.240E+02	0.704E+00
78	0.142E-C1	0.100E+02	0.708E+00	79	0.384E-01	0.100E+02	0.711E+00	80	0.931E-01	0.100E+02	0.716E+00
81	0.218E+00	0.100E+02	0.726E+00	82	0.494E+00	0.100E+02	0.748E+00	83	0.144E+01	0.400E+01	0.758E+00
84	0.340E+01	0.100E+02	0.931E+00	85	0.367E+01	0.10C+E+02	0.946E+00	86	0.644E+01	0.100E+02	0.946E+00
87	0.730E+01	0.100E+02	0.911E+01	88	0.784E+01	0.100E+02	0.913E+01	89	0.641E+01	0.500E+01	0.921E+00
90	0.600E+01	0.800E+01	0.684E+00	91	0.675E+01	0.700E+01	0.998E+00	92	0.628E+01	0.100E+02	0.115E+C1
93	0.113E+02	0.150E+02	0.143E+01	94	0.761E+01	0.100E+02	0.113E+01	95	0.546E+01	0.500E+01	0.895E+C0
94	0.834E+01	0.100E+02	0.103E+01	97	0.449E+01	0.900E+01	0.965E+00	98	0.246E+01	0.100E+02	0.935E+C0
95	0.22CE+01	0.200E+01	0.793E+00	100	0.102E+01	0.100E+02	0.788E+00	101	0.520E+C0	0.100E+02	0.771E+C0
102	0.270E+00	0.100E+02	0.713E+00	103	0.157E+00	0.600E+01	0.713E+C0	104	0.714E-C1	0.100E+02	0.714E+C0
105	0.514E-01	0.140E+02	0.713E+00	106	0.306E-01	0.100E+02	0.710E+00	107	0.320E-01	0.100E+C2	0.711E+00
108	0.533E-C1	0.100E+02	0.711E+00	109	0.355E-01	0.700E+01	0.710E+C0	110	0.355E-C1	0.100E+02	0.711E+00
111	0.383E-C1	0.140E+02	0.712E+00	112	0.406E-01	0.140E+02	0.713E+00	113	0.319E-01	0.700E+02	0.710E+C0
114	0.170E-01	0.100E+01	0.711E+C0	115	0.356E-01	0.150E+02	0.712E+00	116	0.363E-01	0.100E+02	0.711E+00
117	0.353E-C1	0.100E+02	0.711E+00	118	0.341E-01	0.190E+02	0.711E+00	119	0.334E-01	0.100E+02	0.711E+00
120	0.334E-C1	0.100E+02	0.712E+00	121	0.328E-C1	0.150E+02	0.712E+00	122	0.306E-01	0.100E+C2	0.711E+C0
123	0.304E-C1	0.100E+02	0.712E+00	124	0.306E-01	0.100E+02	0.712E+00	125	0.263E-01	0.130E+C0	0.711E+C0
124	0.271E-C1	0.100E+01	0.711E+C0	127	0.123E+00	0.150E+02	0.712E+00	128	0.218E+C0	0.100E+02	0.726E+C0
125	0.377E+00	0.100E+02	0.739E+00	130	0.720E+01	0.100E+02	0.766E+C0	131	0.124E+C1	0.300E+01	0.739E+C0
126	0.212E+C1	0.190E+02	0.564E+C0	133	0.352E+C1	0.100E+02	0.938E+C0	134	0.558E+C1	0.100E+02	0.104E+C0
127	0.443E+C1	0.100E+02	0.594E+C0	136	0.575E+C1	0.700E+01	0.946E+C0	137	0.592E+C1	0.500E+01	0.908E+C0
128	0.790E+C1	0.100E+02	0.114E+C1	139	0.797						

TABLE 6. ADJUSTED FAST FISSION YIELDS FOR 233U.

MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR
72	C.123E-03	0.150E+02	C.160F+C1	73	0.320E-03	0.150E+02	0.160E+01	74	0.438E-02	0.150E+02	0.160E+01
75	0.112E-01	C.15CE+C1	C.16CE+C1	76	0.320E-01	0.150E+02	0.160C+C1	77	0.107E+00	0.150C+02	0.159E+01
79	C.154E+00	0.15CE+C2	0.153E+01	79	0.253E+00	0.150E+02	0.158E+01	80	0.362E+00	0.150E+02	0.157E+01
81	0.505E+00	0.15CE+02	0.155E+01	82	0.126E+01	0.15CE+02	0.149E+01	83	0.241E+01	0.150E+02	0.138E+01
84	0.347E+C1	0.15CE+02	0.125E+01	85	0.366E+01	0.150F+02	0.119E+C1	86	0.476E+01	0.150E+02	0.983E+00
87	C.49CE+C1	0.15CE+C2	0.969E+00	88	0.495E+01	0.150E+02	0.895E+00	89	0.835E+C1	0.150E+01	0.134E+01
90	0.502E+C1	0.150E+02	0.775E+00	91	0.501E+01	0.150E+02	0.760E+00	92	0.500E+C1	0.150E+02	0.752E+00
93	0.499E+01	0.150E+C2	0.74CE+00	94	0.501E+01	0.150E+02	0.757E+00	95	0.502E+C1	0.150E+02	0.775E+00
96	0.501E+C1	0.150E+C2	0.833E+00	97	0.501E+01	0.150E+02	0.840E+00	98	0.493E+C1	0.150E+02	0.909E+00
98	0.407E+C1	0.150E+C1	0.128E+01	100	0.382E+01	0.15CE+02	0.136E+C1	101	0.201E+01	0.100E+02	0.145E+01
101	0.162E+C1	0.100E+C2	0.151F+C1	103	0.876E+00	0.550E+02	0.131E+C1	104	0.642E+00	0.100E+02	0.157E+01
105	0.325E+C0	0.100E+01	C.158I+C1	106	0.247E+00	0.600E+01	0.159E+C1	107	0.180E+00	0.100E+02	0.159E+01
108	C.124E+C1	0.100E+02	C.159E+01	109	0.958E-01	0.100E+02	0.160E+01	110	0.671E-01	0.100E+02	0.160E+01
112	C.512E+C1	0.150E+C2	C.152E+C1	112	0.544E-01	C.10CE+02	0.16CE+C1	113	0.623E-01	0.100E+02	0.16CE+C1
114	C.087E-01	V.10CE+C2	C.160L+C0	115	0.894E-01	C.0.11CE+01	0.160E+01	116	0.846E-01	C.100E+C2	0.160E+01
116	0.326E-01	V.10CE+C2	C.16CE+C1	118	0.958E-01	C.10CE+02	C.160E+01	119	0.118E+00	0.120E+02	0.159E+01
121	0.132E+C0	0.110E+02	C.159E+01	121	0.139F+00	0.100E+02	C.159E+C1	122	0.132E+C0	0.110E+02	0.159E+C1
124	C.177C+C1	C.1CCG+C1	C.159E+C1	124	C.191E+C0	C.10CE+02	C.159+C1	125	C.317E+00	0.100E+02	0.158E+01
124	C.421E+C0	C.40CE+C2	C.159E+C1	127	0.147E+01	C.150E+02	0.147E+C1	128	0.187E+01	0.130E+02	C.144E+C1
129	0.220E+01	0.150E+C2	C.140E+C1	130	0.366E+01	0.150E+02	C.122E+C1	131	C.417E+01	0.150E+02	0.114E+C1
130	0.487E+C1	C.150E+C2	C.937F+C0	133	0.471E+01	0.150E+02	C.100E+C1	134	0.500E+01	0.150E+02	0.840E+C0
131	C.502E+C1	C.150E+C1	C.937E+C0	136	0.502E+01	0.15CE+02	C.810E+CC	137	0.872E+C1	0.500E+C1	0.132E+C1
134	C.502E+C1	C.150E+C2	C.794E+00	139	0.501E+01	0.150E+02	0.842E+00	140	0.739E+01	0.600E+01	0.117E+C1
141	0.756E+01	0.300E+01	C.114E+C1	142	0.623E+01	0.100E+02	C.113E+C1	143	0.476E+C1	0.150E+02	0.985E+C0
144	C.333E+01	C.150E+C2	C.110E+C1	145	0.393E+01	0.100E+02	C.135E+C1	146	0.299E+01	0.100E+02	0.142E+C1
147	0.222E+01	C.150E+C2	C.14CE+C1	148	0.159E+01	0.100E+02	C.151E+C1	149	0.113E+01	0.150E+02	0.151E+C1
150	0.703E+00	0.100E+02	C.156E+C1	151	0.499E+00	0.150E+02	C.156E+C1	152	0.293E+00	0.100E+02	0.159E+C1
153	0.164E+00	0.150E+02	C.159E+C1	154	0.974E-01	0.100E+02	C.160E+C1	155	0.560E-01	0.100E+02	0.16CE+C1
156	0.336E-01	0.100E+02	C.160E+C1	157	0.184E-01	0.150E+02	C.160E+C1	158	0.737E-02	0.100E+02	0.160E+C1
159	0.275E-02	0.150E+02	C.160E+C1	160	0.141E-02	0.10CE+02	C.160E+C1	161	0.759E-03	0.100E+02	0.16CE+C1

SUM OF YIELDS = 0.20000E+03

ALPHA = 0.1602D+01

BETA = -0.8515D+02

SEE TEXT EQUATIONS 6.7 AND 8.

SEE TEXT EQUATIONS 6.7 AND 8.

TABLE 7. ADJUSTED FAST FISSION YIELDS FOR 235U.

MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR
78	0.581E-01	0.100E+02	0.104E+01	79	0.954E-01	0.100E+02	0.104E+C1	80	0.155E+00	0.100E+02	0.104E+01
81	0.259E+00	0.100E+02	C.104E+C1	82	0.403E+00	0.100E+02	0.103E+C1	83	0.635E+00	0.100E+02	0.103E+C1
84	0.111E+01	0.300E+01	0.104E+C1	85	0.146E+01	0.500E+01	0.103E+C1	86	0.199E+01	0.300E+01	0.102E+C1
87	0.262E+01	0.400E+01	0.103E+C1	88	0.374E+01	0.30CE+01	0.103E+C1	89	0.448E+01	0.600E+01	0.102E+C1
90	0.524E+01	0.300E+01	0.103E+C1	91	0.512E+01	0.100E+02	0.100E+C1	92	0.541E+01	0.100E+02	0.100E+C1
93	0.57C8+01	0.100E+02	0.100E+C1	94	0.608E+C1	0.100E+02	0.997E+C0	95	C.661E+01	0.250E+01	0.102E+C1
96	0.618E+01	0.100E+02	0.596E+C0	97	0.607E+01	0.250E+01	0.103E+C1	98	0.619E+01	0.300E+01	0.102E+C1
99	0.571E+01	0.250E+01	C.102E+C1	100	0.651E+C1	0.30CE+01	0.102E+C1	101	0.560E+C1	0.300E+01	0.102E+C1
102	0.478E+01	0.300E+01	0.103E+C1	103	0.338E+01	0.600E+01	0.102E+C1	104	0.243E+C1	0.300E+01	0.103E+C1
105	0.149E+01	0.100E+02	C.103E+C1	106	0.450E+00	0.270E+02	C.103E+C1	107	0.186E+00	0.100E+02	0.104E+C1
108	0.726E-01	0.100E+02	C.104E+C1	109	0.570E-01	0.100E+02	C.104E+C1	110	0.467E-01	0.100E+02	C.104E+C1
111	0.293E-01	0.110E+02	C.104E+C1	112	0.405E-01	0.500E+01	0.104E+C1	113	0.355E-01	0.500E+01	0.104E+C1
114	0.355E-01	C.10CE+C1	C.104E+C1	115	0.228E-01	0.150E+02	C.104E+C1	116	0.373E-01	0.500E+01	0.104E+C1
117	0.384E-01	0.100E+C2	C.104E+C1	118	0.464E+C1	0.10CE+02	C.104E+C1	119	0.435E-01	0.100E+C2	0.104E+C1
120	0.456E+C1	0.10CE+C2	C.104E+C1	121	0.477E-01	0.10CE+02	C.104E+C1	122	0.498E-01	0.100E+C2	0.104E+C1
123	0.573E+C1	0.10CE+C2	C.104E+C1	124	0.622E-01	0.10CE+02	C.104E+C1	125	0.757E-01	0.120E+C2	0.104E+C1
126	0.2114E+C0	0.10CE+C2	C.104E+C1	127	0.207E+00	0.10CE+02	C.104E+C1	128	0.331E+00	0.100E+C2	0.104E+C1
129	0.568E+C0	C.11CE+C1	C.103E+C1	130	0.144E+C1	0.10CE+02	C.103E+C1	131	0.432E+C1	0.300E+01	C.103E+C1
132	0.443E+C1	0.6CE+C1	C.102E+C1	133	0.673E+01	0.30CE+01	0.102E+C1	134	0.725E+C1	0.500E+01	C.102E+C1
133	0.6379E+C1	0.4CE+C1	C.102E+C1	136	0.608E+C1	0.30CE+01	C.103E+C1	137	0.607E+C1	0.600E+01	0.101E+C1
138	0.203E+C0	C.30CE+C1	C.102E+C1	139	0.618E+C1	0.10CE+02	C.996E+C0	140	0.595E+C1	0.200E+01	0.103E+C1
141	0.614E+C1	0.10CE+C2	C.102E+C1	142	0.597E+C1	0.30CE+01	C.103E+C1	143	0.595E+C1	0.300E+01	0.103E+C1
144	0.504E+C1	0.200E+C1	C.1								

TABLE 8. ADJUSTED FAST FISSION YIELDS FOR 238U.

MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR
75	0.564E-07	0.150E+02	0.186E+00	76	0.188E-03	0.150E+02	0.188E+00	77	0.691E-03	0.130E+02	0.189E+00
73	0.267E-02	0.150E+02	0.191E+00	79	0.607E-02	0.150E+02	0.197E+00	80	0.180E-01	0.150E+02	0.207E+00
81	0.456E-01	0.150E+02	0.225E+00	82	0.635E-01	0.150E+02	0.244E+00	83	0.110E+00	0.150E+02	0.275E+00
84	0.169E+00	0.150E+02	0.307E+00	85	0.253E+00	0.150E+02	0.346E+00	86	0.673E+00	0.150E+02	0.487E+00
87	0.947E+00	0.150E+02	0.557E+00	88	0.135E+01	0.150E+02	0.644E+00	89	0.175E+01	0.150E+02	0.800E+01
90	0.202E+01	0.100E+02	0.642E+00	91	0.394E+01	0.150E+02	0.102E+01	92	0.486E+01	0.150E+02	0.113E+01
93	0.575E+01	0.150E+02	0.121E+01	94	0.665E+01	0.150E+02	0.130E+01	95	0.371E+01	0.603E+01	0.669E+00
96	0.187E+01	0.100E+02	0.102E+01	97	0.362E+01	0.500E+01	0.614E+00	98	0.653E+01	0.100E+02	0.107E+01
98	0.400E+01	0.551E+01	100	0.677E+01	0.100E+02	0.109E+01	101	0.960E+01	0.150E+02	0.154E+01	
99	0.939E+01	0.150E+02	0.156E+01	103	0.793E+01	0.132E+02	0.132E+01	104	0.845E+01	0.150E+02	0.145E+01
101	0.279E+01	0.120E+02	0.796E+00	106	0.164E+01	0.900E+01	0.566E+00	107	0.611E+00	0.150E+02	0.470E+00
107	0.201E+00	0.150E+02	0.325E+00	109	0.463E-01	0.150E+02	0.231E+00	110	0.291E-01	0.100E+02	0.208E+00
111	0.151E-01	0.70CE+01	0.196E+00	111	0.142E-01	0.150E+02	0.203E+00	113	0.108E-01	0.100E+02	0.196E+00
114	0.194E-02	0.10CE+02	0.195E+00	115	0.793E-02	0.120E+02	0.195E+00	116	0.684E-02	0.150E+02	0.195E+00
117	0.564E-02	0.150E+02	0.195E+00	116	0.664E-02	0.150E+02	0.195E+00	119	0.664E-02	0.150E+02	0.196E+00
119	0.70CE+01	0.150E+02	0.195E+00	121	0.704E-02	0.150E+02	0.196E+00	122	0.725E-02	0.150E+02	0.196E+00
121	0.766E-02	0.150E+02	0.195E+00	124	0.877E-02	0.150E+02	0.197E+00	125	0.169E-01	0.260E+02	0.217E+00
124	0.151E-01	0.150E+02	0.195E+00	127	0.396E-01	0.310E+02	0.257E+00	128	0.152E+00	0.150E+02	0.259E+00
126	0.419E-02	0.10CE+02	0.195E+00	129	0.124E+01	0.150E+02	0.622E+00	131	0.163E+01	0.500E+01	0.450E+00
129	0.357E+00	0.150E+02	0.355E+00	130	0.839E+01	0.150E+02	0.303E+00	134	0.108E+02	0.150E+02	0.163E+01
131	0.3C9E+01	0.70CE+01	0.651E+00	133	0.112E+01	0.820E+01	0.466E+00	149	0.102E+01	0.150E+02	0.574E+00
132	0.570E+01	0.70CE+01	0.652E+00	136	0.113E+02	0.150E+02	0.166E+01	137	0.649E+01	0.700E+01	0.910E+00
135	0.776E+01	0.10CE+01	0.110E+01	139	0.693E+01	0.10CE+02	0.110E+01	140	0.275E+01	0.300E+01	0.452E+00
138	0.559E+01	0.100E+02	0.995E+00	142	0.491E+01	0.120E+02	0.942E+00	143	0.424E+01	0.100E+02	0.883E+00
141	0.394E+01	0.100E+02	0.854E+00	145	0.341E+01	0.10CE+02	0.303E+00	146	0.299E+01	0.100E+02	0.758E+00
144	0.140E+01	0.00CE+01	0.532E+00	148	0.112E+01	0.820E+01	0.466E+00	149	0.102E+01	0.150E+02	0.283E+00
147	0.601E+00	0.100E+02	0.404E+00	151	0.347E+00	0.100E+02	0.337E+00	152	0.231E-01	0.100E+02	0.204E+00
150	0.121E+00	0.120E+02	0.281E+00	154	0.471E-01	0.100E+02	0.219E+00	155	0.3C4E-02	0.100E+02	0.190E+00
153	0.197E+00	0.110E+02	0.295E+00	157	0.596E-02	0.100E+02	0.192E+00	158	0.303E+00	0.110E+02	0.188E+00
156	0.157E-02	0.150E+02	0.190E+00	160	0.603E-03	0.100E+02	0.188E+00	161	0.280E-03	0.110E+02	0.188E+00

SUM OF YIELDS = 0.2000E+03

ALPHA = 0.1879C+00

BETA = 0.1447D+03

SEE TEXT EQUATIONS 6,7 AND 8.

SEE TEXT EQUATIONS 6,7 AND 8.

TABLE 9. ADJUSTED FAST FISSION YIELDS FOR 239PU.

MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR
75	0.198E-03	0.150E+02	0.641E+00	76	0.728E-02	0.100E+02	0.662E+00	77	0.892E-02	0.320E+02	0.664E+00
79	0.232E-01	0.500E+01	0.663E+00	79	0.360E-01	0.100E+02	0.667E+00	80	0.604E-01	0.100E+02	0.671E+00
81	0.947E-01	0.100E+02	0.676E+00	82	0.165E+00	0.100E+02	0.687E+00	83	0.249E+00	0.600E+01	0.692E+00
84	0.387E+00	0.500E+01	0.691E+00	85	0.469E+00	0.500E+01	0.697E+00	86	0.625E+00	0.500E+01	0.709E+00
87	0.840E+00	0.500E+01	0.724E+00	88	0.1065E+01	0.500E+01	0.739E+00	89	0.1466E+01	0.600E+01	0.783E+00
90	0.216E+01	0.140E+02	0.992E+00	91	0.207E+01	0.500E+01	0.891E+00	92	0.260E+01	0.500E+01	0.831E+00
93	0.341E+01	0.500E+01	0.873E+00	94	0.396E+01	0.500E+01	0.899E+00	95	0.396E+01	0.300E+01	0.818E+00
96	0.474E+01	0.300E+01	0.939E+00	97	0.428E+01	0.250E+01	0.805E+00	98	0.567E+01	0.500E+01	0.976E+00
99	0.494E+01	0.300E+01	0.850E+00	100	0.694E+01	0.500E+01	0.103E+01	101	0.711E+01	0.500E+01	0.103E+01
102	0.724E+01	0.500E+01	0.104E+01	103	0.699E+01	0.500E+01	0.103E+01	104	0.696E+01	0.500E+01	0.103E+01
105	0.748E+01	0.100E+02	0.129E+01	106	0.570E+01	0.100E+02	0.118E+01	107	0.364E+01	0.100E+02	0.104E+01
109	0.221E+01	0.100E+02	0.921E+00	109	0.172E+01	0.150E+02	0.954E+00	110	0.720E+01	0.100E+02	0.764E+00
121	0.319E+00	0.140E+02	0.725E+00	112	0.101E+00	0.510E+02	0.737E+00	113	0.618E-01	0.150E+02	0.676E+00
124	0.213E+00	0.100E+02	0.595E+00	115	0.860E-01	0.700E+02	0.748E+00	116	0.424E-01	0.300E+01	0.663E+00
127	0.427E+01	0.100E+02	0.665E+00	118	0.434E-C1	0.100E+02	0.668E+00	119	0.441E-01	0.100E+02	0.668E+00
129	0.448E+01	0.100E+02	0.665E+00	121	0.454E-01	0.100E+02	0.668E+00	122	0.461E-01	0.100E+02	0.668E+00
132	0.468E+01	0.100E+02	0.569E+00	124	0.809E-01	0.100E+02	0.674E+00	125	0.130E+00	0.110E+02	0.684E+00
135	0.306E+01	0.500E+01	0.63CE+00	127	0.373E+00	0.100E+02	0.717E+00	128	0.598E+00	0.100E+02	0.748E+00
138	0.462E+01	0.500E+01	0.63CE+00	139	0.606E+01	0.500E+01	0.992E+00	140	0.408E+01	0.200E+01	0.775E+00
141	0.534E+01	0.400E+01	0.914E+00	142	0.460E+01	0.500E+01	0.929E+00	143	0.359E+01		

TABLE 10. ADJUSTED FAST FISSION YIELDS FOR Z40PU.

MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR
75	0.255E-03	0.150E+02	0.125E+01	76	0.87E-03	0.150E+02	0.125E+01	77	0.175E-01	0.150E+02	0.125E+01
78	0.352E-01	0.150E+02	0.125E+01	79	0.672E-01	0.150E+02	0.125E+01	80	0.112E+00	0.150E+02	0.124E+01
81	0.135E+00	0.150E+02	0.124E+01	82	0.260E+00	0.150E+02	0.124E+01	83	0.394E+00	0.150E+02	0.123E+01
84	0.551E+00	0.150E+02	0.123E+01	85	0.731E+00	0.150E+02	0.122E+01	86	0.954E+00	0.150E+02	0.121E+01
87	0.122E+01	0.150E+02	0.120E+01	88	0.150E+01	0.150E+02	0.119E+01	89	0.186E+01	0.150E+02	0.117E+01
90	0.226E+01	0.150E+02	0.115E+01	91	0.257E+01	0.150E+02	0.113E+01	92	0.318E+01	0.150E+02	0.110E+01
93	0.375E+01	0.150E+02	0.107E+01	94	0.430E+01	0.150E+02	0.103E+01	95	0.464E+01	0.150E+02	0.101E+01
96	0.490E+01	0.150E+02	0.991E+00	97	0.561E+01	0.150E+02	0.936E+00	98	0.525E+01	0.150E+02	0.965E+00
99	0.543E+01	0.150E+02	0.951E+00	100	0.561E+01	0.150E+02	0.936E+00	101	0.558E+01	0.150E+02	0.938E+00
101	0.595E+01	0.150E+02	0.934E+00	103	0.560E+01	0.150E+02	0.937E+00	104	0.544E+01	0.150E+02	0.950E+00
104	0.722E+01	0.150E+02	0.767E+00	106	0.498E+01	0.150E+02	0.985E+00	107	0.436E+01	0.150E+02	0.103E+01
108	0.741E+01	0.150E+02	0.699E+01	109	0.244E+01	0.150E+02	0.114E+01	110	0.143E+01	0.150E+02	0.119E+01
111	0.719E+00	0.150E+02	0.122E+01	112	0.346E+00	0.150E+02	0.123E+01	113	0.186E+00	0.150E+02	0.124E+01
114	0.124E+00	0.150E+02	0.124E+01	115	0.145E+00	0.150E+02	0.124E+01	116	0.100E+00	0.150E+02	0.124E+01
117	0.165E+00	0.150E+02	0.124E+01	118	0.996E-01	0.150E+02	0.124E+01	119	0.996E-01	0.150E+02	0.124E+01
121	0.226E+00	0.150E+02	0.1267E+00	121	0.105E+00	0.150E+02	0.124E+01	122	0.118E+00	0.150E+02	0.124E+01
125	0.105E+00	0.150E+02	0.124E+01	124	0.149E+00	0.150E+02	0.124E+01	125	0.150E+00	0.150E+02	0.124E+01
128	0.137E+00	0.150E+02	0.123E+01	127	0.455E+00	0.150E+02	0.123E+01	128	0.754E+00	0.150E+02	0.122E+01
132	0.394E+00	0.150E+02	0.955E+00	130	0.217E+01	0.150E+02	0.115E+01	134	0.369E+01	0.150E+02	0.107E+01
135	0.121E+01	0.150E+02	0.123E+01	133	0.544E+01	0.150E+02	0.950E+00	137	0.623E+01	0.150E+02	0.279E+00
138	0.494E+01	0.150E+02	0.903E+00	136	0.515E+01	0.150E+02	0.942E+00	140	0.526E+01	0.150E+02	0.964E+00
141	0.484E+01	0.150E+02	0.951E+00	142	0.521E+01	0.150E+02	0.968E+00	143	0.501E+01	0.150E+02	0.983E+00
144	0.418E+01	0.150E+02	0.104E+01	145	0.359E+01	0.150E+02	0.107E+01	146	0.312E+01	0.150E+02	0.918E+00
147	0.247E+01	0.150E+02	0.114E+01	148	0.212E+01	0.150E+02	0.115E+01	149	0.178E+01	0.150E+02	0.117E+01
150	0.139E+01	0.150E+02	0.119E+01	151	0.113E+01	0.150E+02	0.120E+01	152	0.931E+00	0.150E+02	0.121E+01
153	0.693E+00	0.150E+02	0.122E+01	154	0.503E+00	0.150E+02	0.123E+01	155	0.370E+00	0.150E+02	0.123E+01
156	0.260E+00	0.150E+02	0.124E+01	157	0.174E+00	0.150E+02	0.124E+01	158	0.112E+00	0.150E+02	0.124E+01
159	0.685E-01	0.150E+02	0.125E+01	160	0.412E-01	0.150E+02	0.125E+01	161	0.412E-01	0.150E+02	0.125E+01

SUM OF YIELDS = 0.2000E+03
ALPHA = 0.1249D+01
BETA = -0.3480D+02SEE TEXT EQUATIONS 6.7 AND 8.
SEE TEXT EQUATIONS 6.7 AND 8.

TABLE 10. ADJUSTED FAST FISSION YIELDS FOR Z40PU.

MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR
75	0.108E-03	0.150E+02	0.106E+01	76	0.323E-03	0.150E+02	0.108E+01	77	0.108E-01	0.150E+02	0.108E+01
78	0.204E-01	0.150E+02	0.108E+01	79	0.398E-01	0.150E+02	0.108E+01	80	0.720E-01	0.150E+02	0.107E+01
81	0.118E+00	0.150E+02	0.107E+01	82	0.182E+00	0.150E+02	0.107E+01	83	0.268E-00	0.150E+02	0.107E+01
84	0.396E+00	0.150E+02	0.107E+01	85	0.544E+00	0.150E+02	0.107E+01	86	0.714E+00	0.150E+02	0.107E+01
87	0.934E+00	0.150E+02	0.106E+01	88	0.120E+01	0.150E+02	0.106E+01	89	0.145E+01	0.150E+02	0.105E+01
90	0.194E+01	0.150E+02	0.105E+01	91	0.221E+01	0.150E+02	0.104E+01	92	0.265E+01	0.150E+02	0.104E+01
93	0.322E+01	0.150E+02	0.103E+01	94	0.380E+01	0.150E+02	0.102E+01	95	0.450E+01	0.150E+02	0.100E+01
96	0.470E+01	0.150E+02	0.102E+01	97	0.508E+01	0.150E+02	0.995E+00	98	0.535E+01	0.150E+02	0.990E+00
99	0.542E+01	0.150E+02	0.989E+00	100	0.582E+01	0.150E+02	0.982E+00	101	0.589E+01	0.150E+02	0.981E+00
102	0.301E+01	0.150E+02	0.982E+00	103	0.588E+01	0.150E+02	0.9815E+00	104	0.576E+01	0.150E+02	0.983E+00
105	0.353E+01	0.150E+02	0.987E+00	106	0.510E+01	0.150E+02	0.9935E+00	107	0.490E+01	0.150E+02	0.998E+00
108	0.378E+01	0.150E+02	0.102E+01	109	0.287E+01	0.150E+02	0.103E+01	110	0.178E+01	0.150E+02	0.103E+01
111	0.935E+00	0.150E+02	0.106E+01	112	0.449E+00	0.150E+02	0.107E+01	113	0.236E+00	0.150E+02	0.107E+01
114	0.107E+00	0.150E+02	0.107E+01	115	0.118E+00	0.150E+02	0.107E+01	116	0.107E+00	0.150E+02	0.107E+01
117	0.913E-01	0.150E+02	0.107E+01	118	0.924E-01	0.150E+02	0.107E+01	119	0.913E-01	0.150E+02	0.107E+01
120	0.493E+00	0.150E+02	0.107E+01	121	0.97E-01	0.150E+02	0.107E+01	122	0.999E-01	0.150E+02	0.107E+01
123	0.817E+00	0.150E+02	0.107E+01	124	0.118E+00	0.150E+02	0.107E+01	125	0.118E+00	0.150E+02	0.107E+01
126	0.237E+00	0.150E+02	0.107E+01	127	0.343E+00	0.150E+02	0.107E+01	128	0.555E+00	0.150E+02	0.107E+01
129	0.303E+00	0.150E+02	0.106E+01	130	0.161E+01	0.150E+02	0.105E+01	131	0.294E+01	0.150E+02	0.103E+01
132	0.430E+01	0.150E+02	0.105E+01	133	0.547E+01	0.150E+02	0.988E+00	134	0.597E+01	0.150E+02	0.979E+00
135	0.451E+01	0.150E+02	0.97E+00	136	0.686E+01	0.150E+02	0.963E+00	137	0.696E+01	0.150E+02	0.961E+00
136	0.4332E+01	0.150E+02	0.969E+00	139	0.597E+01	0.150E+02	0.979E+00	140	0.548E+01	0.150E+02	0.980E+00
141	0.398E+01	0.150E+02	0.955E+00								

TABLE 12. ADJUSTED 14MEV FISSION YIELDS FOR 235U.

MASS	CHAIN YIELD	Coeff. OF VAR.	FACTOR	MASS	CHAIN YIELD	Coeff. OF VAR.	FACTOR	MASS	CHAIN YIELD	Coeff. OF VAR.	FACTOR
72	$0.112E+01$	$0.100E+02$	$0.125E+01$	73	$0.300E-01$	$C.150E+02$	$J.125E+01$	74	$0.450E-01$	$0.150E+02$	$0.125E+01$
73	$0.112E+01$	$0.125E+02$	$0.125E+01$	76	$C.150E+02$	$C.150E+02$	$C.125E+01$	71	$0.155E+00$	$0.150E+02$	$0.124E+01$
74	$0.112E+01$	$0.125E+02$	$0.125E+01$	75	$C.244E+00$	$C.150E+02$	$C.122E+01$	80	$0.510E+00$	$0.150E+02$	$0.121E+01$
75	$0.112E+01$	$0.125E+02$	$0.125E+01$	82	$C.114E+01$	$C.150E+02$	$C.116E+01$	62	$0.160E+01$	$0.60E+01$	$C.120E+01$
76	$0.112E+01$	$0.125E+02$	$0.125E+01$	85	$0.254E+01$	$C.150E+02$	$C.102E+01$	86	$0.288E+01$	$0.150E+02$	$0.915E+00$
77	$0.112E+01$	$0.125E+02$	$0.125E+01$	88	$0.360E+01$	$C.150E+02$	$C.857E+00$	89	$0.455E+01$	$0.100E+02$	$0.950E+00$
78	$0.112E+01$	$0.125E+02$	$0.125E+01$	91	$0.586E+01$	$C.150E+02$	$C.108E+01$	92	$0.573E+01$	$0.700E+01$	$0.100E+01$
79	$0.112E+01$	$0.125E+02$	$0.125E+01$	94	$0.411E+01$	$C.150E+02$	$C.657E+00$	95	$0.603E+01$	$0.500E+01$	$0.108E+01$
80	$0.112E+01$	$0.125E+02$	$0.125E+01$	96	$0.550E+01$	$C.60E+01$	$C.106E+01$	98	$0.365E+01$	$0.15CE+02$	$0.639E+00$
81	$0.112E+01$	$0.125E+02$	$0.125E+01$	97	$0.305E+01$	$C.150E+02$	$C.552E+00$	101	$0.284E+01$	$0.150E+02$	$0.90E+00$
82	$0.112E+01$	$0.125E+02$	$0.125E+01$	100	$0.244E+01$	$C.130E+02$	$C.106E+01$	104	$0.211E+01$	$0.150E+02$	$0.106E+01$
83	$0.112E+01$	$0.125E+02$	$0.125E+01$	101	$C.172E+01$	$C.130E+02$	$C.113E+01$	107	$0.181E+01$	$0.150E+02$	$0.110E+01$
84	$0.112E+01$	$0.125E+02$	$0.125E+01$	106	$0.141E+01$	$C.100E+02$	$C.110E+01$	110	$0.147E+01$	$0.15CE+02$	$0.113E+01$
85	$0.112E+01$	$0.125E+02$	$0.125E+01$	109	$0.160E+01$	$C.170E+02$	$C.110E+01$	113	$0.124E+01$	$0.120E+02$	$0.117E+01$
86	$0.112E+01$	$0.125E+02$	$0.125E+01$	112	$0.155E+01$	$C.50E+01$	$C.118E+01$	116	$C.116E+01$	$0.15CE+02$	$0.116E+01$
87	$0.112E+01$	$0.125E+02$	$0.125E+01$	115	$0.118E+01$	$C.15CE+02$	$C.116E+01$	119	$0.121E+01$	$0.15CE+02$	$0.115E+01$
88	$0.112E+01$	$0.125E+02$	$0.125E+01$	116	$0.126E+01$	$C.100E+02$	$C.119E+01$	122	$C.122E+01$	$0.15CE+02$	$0.116E+01$
89	$0.112E+01$	$0.125E+02$	$0.125E+01$	121	$0.126E+01$	$C.150E+02$	$C.112E+01$	125	$0.175E+01$	$0.15CE+02$	$0.116E+01$
90	$0.112E+01$	$0.125E+02$	$0.125E+01$	124	$C.155E+01$	$C.50E+01$	$C.107E+01$	128	$0.247E+01$	$0.15CE+02$	$C.103E+01$
91	$0.112E+01$	$0.125E+02$	$0.125E+01$	127	$C.230E+01$	$C.120E+02$	$C.110E+01$	131	$0.354E+01$	$0.100E+02$	$0.104E+01$
92	$0.112E+01$	$0.125E+02$	$0.125E+01$	129	$0.295E+01$	$C.150E+02$	$C.966E+00$	134	$0.515E+01$	$0.5CCE+01$	$0.111E+01$
93	$0.112E+01$	$0.125E+02$	$0.125E+01$	132	$0.464E+01$	$C.700E+01$	$C.106E+01$	137	$0.450E+01$	$0.100E+02$	$0.558E+00$
94	$0.112E+01$	$0.125E+02$	$0.125E+01$	136	$0.386E+01$	$C.150E+02$	$C.796E+00$	140	$0.486E+01$	$0.50CE+01$	$0.112E+01$
95	$0.112E+01$	$0.125E+02$	$0.125E+01$	139	$0.620E+01$	$C.50CE+01$	$C.107E+01$	143	$0.402E+01$	$0.60CE+01$	$0.112E+01$
96	$0.112E+01$	$0.125E+02$	$0.125E+01$	142	$0.348E+01$	$C.150E+02$	$C.881E+00$	146	$0.167E+01$	$0.150E+02$	$0.111E+01$
97	$0.112E+01$	$0.125E+02$	$0.125E+01$	145	$C.204E+01$	$C.150E+02$	$C.1C7E+01$	149	$0.741E+00$	$0.15CE+02$	$0.120E+01$
98	$0.112E+01$	$0.125E+02$	$0.125E+01$	148	$C.106E+01$	$C.150E+02$	$C.117E+01$	152	$0.211E+00$	$0.15CE+02$	$0.123E+01$
99	$0.112E+01$	$0.125E+02$	$0.125E+01$	151	$C.28CE+00$	$C.150E+02$	$C.122E+01$	155	$0.823E-01$	$0.150E+02$	$0.125E+01$
100	$0.112E+01$	$0.125E+02$	$0.125E+01$	154	$0.124E+00$	$C.150E+02$	$C.124E+01$	158	$0.238E-01$	$0.150E+02$	$0.125E+01$
101	$0.112E+01$	$0.125E+02$	$0.125E+01$	157	$0.350E-01$	$C.150E+02$	$C.125E+01$	161	$0.627E-02$	$0.600E+01$	$C.125E+01$
102	$0.145E-01$	$0.100E+02$	$0.125E+02$	159	$0.10CE-01$	$C.150E+02$	$C.125E+01$				

SUM OF YIELDS = $C.2200E+03$
 ALPHA = $C.1254D+01$
 PETA = $-3.6230D+02$

SEE TEXT EQUATIONS 6,7 AND 8.

SEE TEXT EQUATIONS 6,7 AND 8.

TABLE 12. ADJUSTED 14PEV FISSION YIELDS FOR 235U.

MASS	CHAIN YIELD	Coeff. OF VAR.	FACTOR	MASS	CHAIN YIELD	Coeff. OF VAR.	FACTOR	MASS	CHAIN YIELD	Coeff. OF VAR.	FACTOR
72	$0.649E-02$	$0.800E+01$	$0.968E+00$	73	$0.823E-02$	$C.150E+02$	$C.965E+00$	74	$0.165E-01$	$0.150E+02$	$0.969E+00$
73	$0.242E-01$	$0.150E+02$	$0.969E+00$	76	$0.417E-01$	$0.15CE+02$	$0.969E+00$	77	$0.669E-01$	$0.15CE+02$	$0.969E+00$
74	$0.998E-01$	$0.15CE+02$	$0.969E+00$	75	$0.165E+00$	$C.15CE+02$	$0.969E+00$	60	$0.247E+00$	$0.150E+02$	$0.970E+00$
75	$0.3E1E+00$	$0.15CE+02$	$0.970E+00$	82	$0.403E+00$	$0.150E+02$	$0.977E+00$	63	$0.944E+00$	$0.150E+02$	$0.973E+00$
76	$0.192E+01$	$0.1CE+02$	$0.974E+00$	85	$0.147E+01$	$0.150E+02$	$0.977E+00$	66	$0.196E+01$	$0.150E+02$	$0.98CE+00$
77	$0.264E+01$	$0.150E+02$	$0.983E+00$	88	$0.346E+01$	$0.150E+02$	$0.988E+00$	89	$0.421E+01$	$0.5CE+01$	$0.976E+00$
78	$0.423E+01$	$0.100E+02$	$0.985E+00$	91	$0.489E+01$	$0.70CE+01$	$C.981E+00$	92	$0.519E+01$	$0.150E+02$	$0.997E+00$
79	$0.5234E+01$	$0.100E+02$	$0.988E+00$	94	$0.498E+01$	$0.150E+02$	$0.956E+00$	95	$0.464E+01$	$0.90CE+01$	$0.984E+00$
80	$0.498E+01$	$0.15CE+02$	$0.996E+00$	97	$0.518E+01$	$C.100E+02$	$C.988E+00$	98	$0.529E+01$	$0.150E+02$	$0.998E+00$
81	$C.518E+01$	$0.600E+01$	$0.980E+00$	100	$0.457E+01$	$0.554E+02$	$C.954E+00$	101	$0.411E+01$	$0.150E+02$	$0.991E+00$
82	$0.366E+01$	$0.150E+02$	$0.998E+00$	103	0.332						

TABLE 14. ADJUSTED 14MEV FISSION YIELDS FOR 238U.

MASS	CHAIN YIELD OF VAR.	COEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	CCEFF. OF VAR.	FACTOR	MASS	CHAIN YIELD	COEFF. OF VAR.	FACTOR
72	0.332E+02	0.130E+02	0.111E+C1	72	C.553E-02	0.170E+02	0.111E+01	74	0.963E-02	0.150E+02	0.111E+C1
72	0.144E-01	0.150E+C2	0.111E+01	76	0.232E-01	0.150E+02	0.111E+C1	77	0.332E-C1	0.800E+01	0.111E+01
74	0.452E-C1	0.110E+02	0.111E+01	79	C.205E+0C	0.170E+02	C.110E+C1	80	0.371E+00	0.150E+02	0.109E+01
81	0.4468E+C0	C.150E+02	0.109E+01	82	0.607E+C0	0.150E+02	0.108E+01	83	0.792E+00	0.500E+01	0.110E+01
84	0.142E+C1	0.300E+C1	0.110E+01	85	0.122E+C1	0.500E+01	0.109E+C1	86	0.150E+01	0.600E+01	0.108E+01
87	C.605E+C1	0.150E+C1	0.102E+01	88	0.232E+C1	0.150E+02	0.111E+C1	89	0.284E+01	0.700E+01	0.105E+01
90	C.235E+C1	0.400E+C1	0.107E+01	91	0.231E+01	0.600E+01	0.105E+C1	92	0.359E+01	0.150E+02	C.945E+00
92	C.439E+C1	0.400E+C1	0.106E+C1	94	C.426E+C1	0.150E+02	0.907E+C0	95	0.516E+01	0.900E+01	0.971E+00
96	C.477E+C1	0.150E+02	0.975E+00	97	0.574E+01	0.400E+01	0.104E+01	98	0.499E+01	0.150E+02	C.860E+00
99	C.605E+C1	0.400E+C1	0.104E+01	100	0.511E+C1	0.150E+02	0.852E+00	101	0.625E+01	0.400E+01	0.104E+01
102	C.363E+C1	0.800E+C1	0.103E+01	103	0.407E+01	C.110E+02	C.577E+C0	104	0.319E+01	0.150E+02	C.567E+00
105	C.279E+C1	0.500E+C1	0.134E+01	106	0.244E+01	0.130E+02	C.102E+C1	107	0.188E+01	0.150E+02	C.106E+01
108	C.176E+C1	0.150E+C2	0.103E+01	109	0.162E+01	0.900E+01	0.107E+01	110	0.132E+01	0.150E+02	0.105E+01
111	C.100E+C0	0.600E+C1	0.109E+01	112	C.1C6E+C1	C.130E+02	0.107E+01	113	0.969E-01	0.700E+01	C.111E+01
114	C.958E+C0	0.150E+02	0.107E+01	115	0.809E+00	0.700E+01	C.109E+C1	116	0.764E+00	0.150E+02	C.108E+01
117	0.754E+C0	0.150E+02	0.108E+01	118	0.754E+00	0.150E+02	0.108E+01	119	0.764E+00	0.150E+02	C.108E+01
120	0.796E+C0	0.150E+02	0.103E+01	121	0.105E+01	C.109E+C1	C.102E+C1	122	0.900E+00	0.150E+02	C.106E+01
123	C.982E+C0	0.150E+C2	0.107E+01	124	0.108E+01	0.150E+02	C.106E+C1	125	0.117E+01	0.150E+02	C.106E+01
126	0.132E+C1	0.150E+C2	0.105E+01	127	0.154E+01	0.600E+C1	C.106E+C1	128	0.150E+01	0.150E+02	0.103E+01
129	0.134E+C1	0.123E+C2	0.106E+01	130	0.298E+01	0.150E+02	0.977E+C0	131	0.355E+01	0.700E+01	0.103E+01
132	0.493E+C1	0.400E+C1	0.105E+01	133	0.663E+01	C.500E+01	0.101E+01	134	0.674E+01	0.400E+01	C.103E+C1
135	0.580E+C1	0.500E+C1	0.103E+01	136	0.579E+01	C.500E+01	C.103E+C1	137	0.569E+01	0.800E+01	0.975E+00
138	0.444E+C1	0.120E+C2	0.947E+C0	139	0.504E+01	0.700E+01	0.101E+C1	140	0.498E+01	0.300E+01	0.107E+01
141	0.464E+C1	0.100E+C2	0.972E+C0	142	0.397E+01	C.150E+02	C.924E+C0	143	0.392E+01	0.500E+01	C.105E+C1
144	0.326E+C1	0.100E+C2	0.102E+01	145	0.338E+01	C.500E+01	C.106E+C1	146	0.250E+01	0.150E+02	C.100E+C1
147	0.227E+C0	0.400E+C1	0.108E+01	148	0.156E+01	0.150E+02	C.104E+C1	149	0.122E+01	0.150E+02	0.106E+01
150	0.920E+00	0.150E+C2	0.107E+01	151	0.712E+00	0.150E+02	C.1C8F+C1	152	0.543E+00	0.150E+02	0.109E+01
153	C.440E+C0	0.500E+C1	0.110E+C1	154	0.274E+00	C.150E+02	C.110E+C1	155	0.176E+00	0.150E+02	0.110E+01
156	0.121E+00	0.900E+C1	0.110E+C1	157	0.175E-02	C.150E+02	0.111E+C1	158	0.464E-01	0.150E+02	0.111E+C1
159	0.288E-01	0.122E+C0	0.111E+C1	160	0.163E-01	0.150E+02	0.111E+C1	161	0.915E-C2	0.500E+01	0.111E+C1

SUM OF YIELDS = 0.2000E+03

ALPHA = C.1107D+01 SEE TEXT EQUATIONS 6,7 AND 8.

BETA = -0.2032C+02 SEE TEXT EQUATIONS 6,7 AND 8.

TABLE 15. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION.

MASS	NO.	ATOMIC NO.	232TH	233U	235U	238AU	239PU	240PU	241PU	242PU	243PU
72	26	0.C	0.0000	0.0001	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
72	27	0.C	0.0083	0.0101	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
78	28	0.C	0.3365	0.3335	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
79	29	0.C	1.4558	0.4832	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
79	30	0.C	2.1262	0.1699	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
81	31	0.C	0.0154	0.0147	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
82	32	0.C	0.0027	0.0025	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
83	33	0.C	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
73	26	0.C	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
73	27	0.C	0.0012	0.0015	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
78	28	0.C	2.1287	0.1322	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
79	29	0.C	0.4207	0.4616	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
79	30	0.C	2.4125	0.891	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
81	31	0.C	0.0014	0.0011	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
82	32	0.C	2.0010	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
83	33	0.C	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
75	27	0.C	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
75	28	0.C	0.0007	0.0009	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
78	29	0.C	0.0312	0.0349	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
79	30	0.C	0.2599	0.3024	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
81	31	0.C	2.6192	0.6036	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
82	32	0.C	0.0053	0.0071	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
83	33	0.C	2.0014	0.0011	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
76	27	0.C	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
76	28	0.C	0.0007	0.0009	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
78	29	0.C	0.1191	0.1438	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
79	30	0.C	0.7012	0.6830	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
81	31	0.C	2.1560	0.1573	0.0	0.0000	0.0				

TABLE I. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION.

MASS NO.	ATOMIC NO.	232H	233U	235U	238U	239PU	240PU	241PU
77	28	0.0	0.0000	0.0001	0.0	0.0000	0.0	0.0001
78	29	0.0	0.0035	0.0120	0.0	0.0064	0.0	0.0226
79	30	0.0	0.2275	0.3581	0.0	0.2799	0.0	0.3468
80	31	0.0	0.4619	0.4747	0.0	0.4862	0.0	0.5395
81	32	0.0	0.3059	0.1524	0.0	0.2235	0.0	0.0899
82	33	0.0	0.0057	0.0020	0.0	0.0040	0.0	0.0013
83	34	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000
84	35	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000
85	28	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
86	29	0.0	0.0004	0.0017	0.0	0.0007	0.0	0.0036
87	30	0.0	0.0643	0.1325	0.0	0.0702	0.0	0.1511
88	31	0.0	0.3417	0.4527	0.0	0.4074	0.0	0.5877
89	32	0.0	0.5602	0.5957	0.0	0.4777	0.0	0.2477
90	33	0.0	0.3327	0.0166	0.0	0.0236	0.0	0.0102
91	34	0.0	0.0095	0.0001	0.0	0.0002	0.0	0.0000
92	35	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0
93	27	0.0	0.0	0.0000	0.0	0.0	0.0	0.0
94	28	0.0	0.0	0.0020	0.0	0.0	0.0	0.0
95	29	0.0	0.0000	0.0172	0.0	0.0000	0.0	0.0003
96	30	0.0	0.0107	0.1440	0.0	0.0177	0.0	0.0412
97	31	0.0	0.1628	0.2410	0.0	0.2206	0.0	0.4321
98	32	0.0	0.7075	0.4069	0.0	0.6692	0.0	0.4719
99	33	0.0	0.1136	0.1378	0.0	0.0898	0.0	0.0543
100	34	0.0	0.0050	0.0470	0.0	0.0027	0.0	0.0005
101	35	0.0	0.0000	0.0032	0.0	0.0000	0.0	0.0000
102	36	0.0	0.0	0.0002	0.0	0.0	0.0	0.0
103	37	0.0	0.0	0.0000	0.0	0.0	0.0	0.0
104	29	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000
105	30	0.0	0.0116	0.0059	0.0	0.0026	0.0	0.0086
106	31	0.0	0.0623	0.1373	0.0	0.0921	0.0	0.2283
107	32	0.0	0.6555	0.6831	0.0	0.6715	0.0	0.5924
108	33	0.0	0.4460	0.5673	0.0	0.4955	0.0	0.5284
109	34	0.0	0.4176	0.3391	0.0	0.3956	0.0	0.3630
110	35	0.0	0.1248	0.0472	0.0	0.0817	0.0	0.0254
111	36	0.0	0.0011	0.0003	0.0	0.0006	0.0	0.0001
112	37	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000
113	30	0.0	0.0000	0.0001	0.0	0.0003	0.0	0.0001
114	31	0.0	0.706	0.0101	0.0	0.0137	0.0	0.0193
115	32	0.0	0.1486	0.3335	0.0	0.2788	0.0	0.3253
116	33	0.0	0.5206	0.4832	0.0	0.4146	0.0	0.5530
117	34	0.0	0.3180	0.1699	0.0	0.2788	0.0	0.1010
118	35	0.0	0.029	0.0025	0.0	0.0137	0.0	0.0017
119	36	0.0	0.0000	0.0000	0.0	0.0003	0.0	0.0000
120	37	0.0	0.0	0.0	0.0	0.0000	0.0	0.0
121	30	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
122	31	0.0	0.0002	0.0000	0.0	0.0006	0.0	0.0031
123	32	0.0	0.0516	0.0613	0.0	0.0790	0.0	0.1400
124	33	0.0	0.3160	0.5679	0.0	0.3915	0.0	0.5829
125	34	0.0	0.5914	0.3677	0.0	0.5013	0.0	0.2626
126	35	0.0	0.0737	0.0023	0.0	0.0272	0.0	0.0117
127	36	0.0	0.0000	0.0000	0.0	0.0003	0.0	0.0000
128	37	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0
129	30	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
130	31	0.0	0.0000	0.0025	0.0	0.0000	0.0	0.0003
131	32	0.0	0.0073	0.0974	0.0	0.0155	0.0	0.0398
132	33	0.0	0.1627	0.2962	0.0	0.2084	0.0	0.4269
133	34	0.0	0.5914	0.5137	0.0	0.6758	0.0	0.4767
134	35	0.0	0.0737	0.0023	0.0	0.0272	0.0	0.0561
135	36	0.0	0.0000	0.0000	0.0	0.0003	0.0	0.0006
136	37	0.0	0.0000	0.0001	0.0	0.0000	0.0	0.0000

TABLE I. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION.

MASS NO.	ATOMIC NO.	232H	233U	235U	238U	239PU	240PU	241PU
91	29	0.0	0.0001	0.0	0.0	0.0003	0.0	0.0000
92	30	0.0	0.0071	0.0007	0.0	0.0003	0.0	0.0011
93	31	0.0	0.0446	0.0446	0.0	0.0263	0.0	0.0222
94	32	0.0	0.4460	0.5673	0.0	0.4955	0.0	0.5284
95	33	0.0	0.4176	0.3391	0.0	0.3956	0.0	0.3630
96	34	0.0	0.1248	0.0472	0.0	0.0817	0.0	0.0254
97	35	0.0	0.0011	0.0003	0.0	0.0006	0.0	0.0001
98	36	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000
99	37	0.0	0.0	0.0	0.0	0.0000	0.0	0.0
100	30	0.0	0.0000	0.0001	0.0	0.0003	0.0	0.0001
101	31	0.0	0.706	0.0101	0.0	0.0137	0.0	0.0193
102	32	0.0	0.1486	0.3335	0.0	0.2788	0.0	0.3253
103	33	0.0	0.5206	0.4832	0.0	0.4146	0.0	0.5530
104	34	0.0	0.3180	0.1699	0.0	0.2788	0.0	0.1010
105	35	0.0	0.029	0.0025	0.0	0.0137	0.0	0.0017
106	36	0.0	0.0000	0.0000	0.0	0.0003	0.0	0.0000
107	37	0.0	0.0	0.0	0.0	0.0000	0.0	0.0
108	30	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
109	31	0.0	0.0002	0.0000	0.0	0.0006	0.0	0.0031
110	32	0.0	0.0516	0.0613	0.0	0.0790	0.0	0.1400
111	33	0.0	0.3160	0.5679	0.0	0.3915	0.0	0.5829
112	34	0.0	0.5914	0.3677	0.0	0.5013	0.0	0.2626
113	35	0.0	0.0737	0.0023	0.0	0.0272	0.0	0.0117
114	36	0.0	0.0000	0.0000	0.0	0.0003	0.0	0.0000
115	37	0.0	0.0000	0.0001	0.0	0.0000	0.0	0.0
116	30	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
117	31	0.0	0.0000	0.0025	0.0	0.0000	0.0	0.0003
118	32	0.0	0.0073	0.0974	0.0	0.0155	0.0	0.0398
119	33	0.0	0.1627	0.2962	0.0	0.2084	0.0	0.4269
120	34	0.0	0.5914	0.5137	0.0	0.6758	0.0	0.4767
121	35	0.0	0.0737	0.0023	0.0	0.0272	0.0	0.0561
122	36	0.0	0.0000	0.0000	0.0	0.0003	0.0	0.0006
123	37	0.0	0.0000	0.0001	0.0	0.0000	0.0	0

(CONT.)

TABLE I^a. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION.

			232Th	233U	235U	238U	239Pu	240Pu	241Pu
11	31	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000	0.0
12	32	0.0	0.0011	0.0040	0.0	0.0022	0.0	0.0075	0.0
13	33	0.0	0.0123	0.1249	0.0	0.0406	0.0	0.2142	0.0
14	34	0.0	0.6324	0.6802	0.0	0.6588	0.0	0.5945	0.0
15	35	0.0	0.2770	0.1700	0.0	0.2374	0.0	0.1790	0.0
16	36	0.0	0.3366	0.0103	0.0	0.0210	0.0	0.0051	0.0
17	37	0.0	0.0001	0.0000	0.0	0.0001	0.0	0.0000	0.0
18	38	0.0	0.0076	0.0	0.0	0.0	0.0	0.0	0.0
19	39	0.0	0.0001	0.0000	0.0	0.0	0.0	0.0	0.0
20	40	0.0	0.0001	0.0000	0.0	0.0	0.0	0.0	0.0
21	41	0.0	0.0001	0.0033	0.0	0.0002	0.0	0.0009	0.0
22	42	0.0	0.0121	0.0638	0.0	0.0211	0.0	0.0726	0.0
23	43	0.0	0.3047	0.5004	0.0	0.4595	0.0	0.5124	0.0
24	44	0.0	0.4375	0.3341	0.0	0.4189	0.0	0.3845	0.0
25	45	0.0	0.1335	0.0955	0.0	0.0944	0.0	0.0296	0.0
26	46	0.0	0.0117	0.0022	0.0	0.0009	0.0	0.0002	0.0
27	47	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
28	48	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
29	49	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
30	50	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
31	51	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0001	0.0
32	52	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0001	0.0
33	53	0.0	0.0001	0.0000	0.0	0.0003	0.0	0.0020	0.0
34	54	0.0	0.0001	0.0422	0.0	0.0003	0.0	0.1099	0.0
35	55	0.0	0.0300	0.2131	0.0	0.0557	0.0	0.2935	0.0
36	56	0.0	0.2557	0.2482	0.0	0.3484	0.0	0.5700	0.0
37	57	0.0	0.6519	0.3372	0.0	0.5566	0.0	0.3093	0.0
38	58	0.0	0.0605	0.1059	0.0	0.2657	0.0	0.1194	0.0
39	59	0.0	0.0126	0.0016	0.0	0.0067	0.0	0.0023	0.0
40	60	0.0	0.0001	0.0000	0.0	0.0000	0.0	0.0000	0.0
41	61	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
42	62	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
43	63	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
44	64	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
45	65	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
46	66	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
47	67	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
48	68	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
49	69	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
50	70	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
51	71	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
52	72	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
53	73	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
54	74	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
55	75	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
56	76	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
57	77	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
58	78	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
59	79	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
60	80	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
61	81	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
62	82	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
63	83	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
64	84	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
65	85	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
66	86	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
67	87	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
68	88	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
69	89	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
70	90	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
71	91	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
72	92	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
73	93	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
74	94	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
75	95	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
76	96	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
77	97	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
78	98	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
79	99	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
80	100	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0

(CONT.)

TABLE I^a. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION.

			232Th	233U	235U	238U	239Pu	240Pu	241Pu
19	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	34	0.0	0.0001	0.0025	0.0	0.0046	0.0	0.0296	0.0
22	35	0.0	0.0117	0.2116	0.0	0.1532	0.0	0.3845	0.0
23	36	0.0	0.0608	0.7521	0.0	0.7347	0.0	0.5124	0.0
24	37	0.0	0.0166	0.0330	0.0	0.1054	0.0	0.0726	0.0
25	38	0.0	0.0002	0.0000	0.0	0.0021	0.0	0.0009	0.0
26	39	0.0	0.0	0.0	0.0	0.0000	0.0	0.0000	0.0
27	40	0.0	0.0000	0.0003	0.0	0.0000	0.0	0.0000	0.0
28	41	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
29	42	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
30	43	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0
31	44	0.0	0.0000	0.0000	0.0	0.0000	0		

(CONT.)

TABLE 14. ADJUSTED FRACTIONAL INDEPENDENT YIELD FOR THERMAL FISSION.

MASS NO.	ATOMIC NO.	230TH	233U	235U	238U	239PU	240PU	241PU
93	34	0.0	0.0	0.0	0.0	0.0	0.0	0.0000
	35	0.0	0.0001	0.0007	0.0	0.0000	0.0	0.0019
	36	0.0	0.0788	0.1049	0.0	0.0238	0.0	0.1069
	37	0.0	0.2514	0.4670	0.0	0.3403	0.0	0.5591
	38	0.0	0.6565	0.4133	0.0	0.6118	0.0	0.3146
	39	0.0	0.0623	0.0135	0.0	0.0241	0.0	0.0178
	40	0.0	0.0116	0.0001	0.0	0.0001	0.0	0.0001
	41	0.0	0.0000	0.0	0.0	0.0	0.0	0.0
94	34	0.0	0.0	0.0000	0.0	0.0	0.0	0.0
	35	0.0	0.0050	0.0008	0.0	0.0000	0.0	0.0002
	36	0.0	0.0246	0.0170	0.0	0.0091	0.0	0.0245
	37	0.0	0.1782	0.1516	0.0	0.1632	0.0	0.3792
	38	0.0	0.7054	0.5548	0.0	0.6916	0.0	0.5165
	39	0.0	0.1637	0.1814	0.0	0.1303	0.0	0.0749
	40	0.0	0.0117	0.0321	0.0	0.0057	0.0	0.0010
	41	0.0	0.0000	0.0006	0.0	0.0000	0.0	0.0000
	42	0.0	0.0	0.0000	0.0	0.0	0.0	0.0
95	35	0.0	0.0000	0.0000	0.0	0.0	0.0	0.0000
	36	0.0	0.0113	0.0036	0.0	0.0010	0.0	0.0051
	37	0.0	0.0531	0.1282	0.0	0.0565	0.0	0.1790
	38	0.0	0.6233	0.7135	0.0	0.6265	0.0	0.5945
	39	0.0	0.2610	0.1491	0.0	0.2955	0.0	0.2142
	40	0.0	0.0408	0.0049	0.0	0.0304	0.0	0.0075
	41	0.0	0.0002	0.0000	0.0	0.0001	0.0	0.0000
	42	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0
96	35	0.0	0.0000	0.0000	0.0	0.0	0.0	0.0000
	36	0.0	0.0112	0.0043	0.0	0.0000	0.0	0.0006
	37	0.0	0.0252	0.0632	0.0	0.0030	0.0	0.0580
	38	0.0	0.3432	0.4585	0.0	0.3025	0.0	0.4814
	39	0.0	0.3501	0.3392	0.0	0.5526	0.0	0.2779
	40	0.0	0.2557	0.1292	0.0	0.1413	0.0	0.0384
	41	0.0	0.0139	0.0048	0.0	0.0006	0.0	0.0003
	42	0.0	0.0005	0.0001	0.0	0.0000	0.0	0.0000
	43	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0
97	35	0.0	0.0000	0.0000	0.0	0.0	0.0	0.0000
	36	0.0	0.0002	0.0100	0.0	0.0031	0.0	0.0133
	37	0.0	0.0821	0.3441	0.0	0.1815	0.0	0.4217
	38	0.0	0.3501	0.3392	0.0	0.2955	0.0	0.5770
	39	0.0	0.2557	0.1292	0.0	0.1413	0.0	0.0749
	40	0.0	0.0139	0.0048	0.0	0.0006	0.0	0.0010
	41	0.0	0.0002	0.0002	0.0	0.0001	0.0	0.0000
	42	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000
	43	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000
98	36	0.0	0.0	0.0	0.0	0.0	0.0	0.0000
	37	0.0	0.0001	0.0008	0.0	0.0003	0.0	0.0021
	38	0.0	0.0288	0.0915	0.0	0.0499	0.0	0.1130
	39	0.0	0.2514	0.4208	0.0	0.3532	0.0	0.5648
	40	0.0	0.6555	0.6627	0.0	0.5718	0.0	0.3040
	41	0.0	0.0623	0.0233	0.0	0.0421	0.0	0.0164
	42	0.0	0.0116	0.0002	0.0	0.0007	0.0	0.0001
	43	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000
99	34	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	35	0.0	0.0	0.0001	0.0	0.0	0.0	0.0000
	36	0.0	0.0	0.0024	0.0	0.0	0.0	0.0000
	37	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	38	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	39	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	40	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	41	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	42	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	43	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	44	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	45	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
100	37	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	38	0.0	0.0	0.0007	0.0	0.0042	0.0	0.0071
	39	0.0	0.0	0.0410	0.0	0.1161	0.0	0.2096
	40	0.0	0.0	0.5973	0.0	0.6768	0.0	0.5950
	41	0.0	0.0	0.3117	0.0	0.1904	0.0	0.2633
	42	0.0	0.0	0.0437	0.0	0.0118	0.0	0.0268
	43	0.0	0.0	0.2002	0.0	0.0001	0.0	0.0054
	44	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000
	45	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000

(CONT.)

TABLE 15. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION.

MASS NO.	ATOMIC NO.	232Th	233U	235U	238U	239PU	240PU	241PU
97	35	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0001
	36	0.0	0.0002	0.0100	0.0	0.0031	0.0	0.0133
	37	0.0	0.0821	0.3441	0.0	0.1815	0.0	0.4217
	38	0.0	0.3501	0.3392	0.0	0.2955	0.0	0.5770
	39	0.0	0.2557	0.1292	0.0	0.1413	0.0	0.0003
	40	0.0	0.0139	0.0048	0.0	0.0006	0.0	0.0027
	41	0.0	0.0002	0.0019	0.0	0.0019	0.0	0.0000
	42	0.0	0.0000	0.0000	0.0	0.0001	0.0	0.0000
98	36	0.0	0.0	0.0	0.0	0.0	0.0	0.0000
	37	0.0	0.0001	0.0008	0.0	0.0003	0.0	0.0021
	38	0.0	0.0288	0.0915	0.0	0.0499	0.0	0.1130
	39	0.0	0.2514	0.4208	0.0	0.3532	0.0	0.5648
	40	0.0	0.6555	0.6627	0.0	0.5718	0.0	0.3040
	41	0.0	0.0623	0.0233	0.0	0.0421	0.0	0.0164
	42	0.0	0.0116	0.0002	0.0	0.0007	0.0	0.0001
	43	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000
99	34	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	35	0.0	0.0	0.0001	0.0	0.0	0.0	0.0000
	36	0.0	0.0	0.0024	0.0	0.0	0.0	0.0000
	37	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	38	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	39	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	40	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000
	41	0.0	0.0	0.0000				

TABLE I - ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION. (CONT.)

MASS NO.	ATOMIC NO.	232PU	233U	235U	238U	239PU	240PU	241PU
111	37	0.6	0.2	0.0	0.0	0.0	0.0	0.0000
	38	0.9	0.0001	0.0006	0.0	0.0002	0.0	0.0011
	39	0.2	0.017	0.0405	0.0	0.0203	0.0	0.0797
	40	0.9	0.3752	0.5523	0.0	0.4534	0.0	0.5246
	41	0.8	0.4446	0.3528	0.0	0.4226	0.0	0.3684
	42	0.9	0.1670	0.0528	0.0	0.1026	0.0	0.0264
	43	0.9	0.020	0.0003	0.0	0.0009	0.0	0.0002
	44	0.9	0.0053	0.0000	0.0	0.0000	0.0	0.0000
112	37	0.6	0.0	0.0	0.0	0.0	0.0	0.0
	38	0.6	0.0000	0.0001	0.0	0.0000	0.0	0.0001
	39	0.6	0.0018	0.0097	0.0	0.0040	0.0	0.0218
	40	0.6	0.1579	0.3274	0.0	0.2335	0.0	0.3414
	41	0.6	0.4400	0.4850	0.0	0.4862	0.0	0.5430
	42	0.6	0.3982	0.1745	0.0	0.2798	0.0	0.0926
	43	0.6	0.0116	0.0026	0.0	0.0064	0.0	0.0014
	44	0.6	0.0091	0.0000	0.0	0.0000	0.0	0.0000
113	38	0.6	0.0	0.0	0.0	0.0	0.0	0.0000
	39	0.6	0.0002	0.0002	0.0	0.0005	0.0	0.0040
	40	0.6	0.0444	0.0284	0.0	0.0738	0.0	0.1588
	41	0.6	0.2987	0.6690	0.0	0.3833	0.0	0.5903
	42	0.6	0.6105	0.3017	0.0	0.5129	0.0	0.2379
	43	0.6	0.050	0.0002	0.0	0.0292	0.0	0.0094
	44	0.6	0.0009	0.0	0.0	0.0003	0.0	0.0000
	45	0.6	0.0000	0.0	0.0	0.0000	0.0	0.0000
114	38	0.6	0.0	0.0	0.0	0.0	0.0	0.0000
	39	0.6	0.0000	0.0002	0.0	0.0000	0.0	0.0005
	40	0.6	0.0000	0.0377	0.0	0.0177	0.0	0.0543
	41	0.6	0.1494	0.3116	0.0	0.2206	0.0	0.4719
	42	0.6	0.7103	0.5951	0.0	0.6692	0.0	0.4321
	43	0.6	0.1248	0.0538	0.0	0.0898	0.0	0.0412
	44	0.6	0.0061	0.0010	0.0	0.0027	0.0	0.0003
	45	0.6	0.0000	0.0000	0.0	0.0000	0.0	0.0000
115	38	0.6	0.0	0.0	0.0	0.0	0.0	0.0000
	39	0.6	0.0000	0.0002	0.0	0.0000	0.0	0.0000
	40	0.6	0.0001	0.0000	0.0	0.0005	0.0	0.0000
	41	0.6	0.0107	0.0405	0.0	0.0156	0.0	0.0011
	42	0.6	0.3752	0.5523	0.0	0.0804	0.0	0.0822
	43	0.6	0.4446	0.3528	0.0	0.3844	0.0	0.5284
	44	0.6	0.1670	0.0528	0.0	0.2995	0.0	0.3630
	45	0.6	0.0220	0.0033	0.0	0.0246	0.0	0.0254
	46	0.6	0.0000	0.0000	0.0	0.0227	0.0	0.0001
	47	0.6	0.3	0.0	0.0	0.0023	0.0	0.0000
116	40	0.6	0.0000	0.0000	0.0	0.0000	0.0	0.0000
	41	0.6	0.0012	0.0078	0.0	0.0000	0.0	0.0001
	42	0.6	0.1297	0.2973	0.0	0.0036	0.0	0.0178
	43	0.6	0.4237	0.4924	0.0	0.2130	0.0	0.3146
	44	0.6	0.4335	0.1784	0.0	0.4846	0.0	0.4767
	45	0.6	0.0554	0.0034	0.0	0.0970	0.0	0.1069
	46	0.6	0.0001	0.0000	0.0	0.0000	0.0	0.0019
	47	0.6	0.0000	0.0	0.0	0.0000	0.0	0.0000
117	40	0.6	0.0	0.0	0.0	0.0	0.0	0.0000
	41	0.6	0.0000	0.0002	0.0	0.0003	0.0	0.0006
	42	0.6	0.0085	0.9377	0.0	0.0518	0.0	0.0561
	43	0.6	0.1452	0.3116	0.0	0.3397	0.0	0.4269
	44	0.6	0.7138	0.5951	0.0	0.5668	0.0	0.398
	45	0.6	0.1277	0.0539	0.0	0.0408	0.0	0.0003
	46	0.6	0.0524	0.0010	0.0	0.0006	0.0	0.0000
	47	0.6	0.0070	0.0000	0.0	0.0000	0.0	0.0000

(CONT.)

TABLE II - ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION. (CONT.)

MASS NO.	ATOMIC NO.	232PU	233U	235U	238U	239PU	240PU	241PU
105	39	0.0	0.0	0.0000	0.0059	0.0	0.0000	0.0
	40	0.0	0.0000	0.0493	0.1373	0.0	0.0023	0.0
	41	0.0	0.0444	0.6240	0.6831	0.0	0.0829	0.0
	42	0.0	0.2857	0.1643	0.0	0.6615	0.0	0.5977
	43	0.0	0.0396	0.0086	0.0	0.231	0.0	0.1511
	44	0.0	0.0002	0.0000	0.0	0.0201	0.0	0.0036
	45	0.0	0.0000	0.0000	0.0	0.0001	0.0	0.0000
106	38	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	39	0.0	0.0	0.0	0.0	0.0	0.0005	0.0
	40	0.0	0.0001	0.0006	0.0	0.0156	0.0	0.0011
	41	0.0	0.0107	0.0405	0.0	0.0804	0.0	0.0822
	42	0.0	0.3752	0.5523	0.0	0.3844	0.0	0.5284
	43	0.0	0.4446	0.3528	0.0	0.2995	0.0	0.3630
	44	0.0	0.1670	0.0528	0.0	0.0246	0.0	0.0254
	45	0.0	0.0220	0.0033	0.0	0.0227	0.0	0.0001
	46	0.0	0.0000	0.0000	0.0	0.0023	0.0	0.0000
	47	0.0	0.3	0.0	0.0	0.0000	0.0	0.0000
107	40	0.0	0.0000	0.0000	0.0	0.0000	0.0	0.0000
	41	0.0	0.0012	0.0078	0.0	0.0036	0.0	0.0178
	42	0.0	0.1297	0.2973	0.0	0.2130	0.0	0.3146
	43	0.0	0.4237	0.4924	0.0	0.4846	0.0	0.5591
	44	0.0	0.4335	0.1784	0.0	0.2917	0.0	0.1069
	45	0.0	0.0554	0.0034	0.0	0.0970	0.0	0.0019
	46	0.0	0.0001	0.0000	0.0	0.0000	0.0	0.0000
	47	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0000
108	40	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	41	0.0	0.0000	0.0002	0.0002	0.0	0.0003	0.0
	42	0.0	0.0085	0.9377	0.0	0.0518	0.0	0.0561
	43	0.0	0.1452	0.3116	0.0	0.3397	0.0	0.4269
	44	0.0	0.7138	0.5951	0.0	0.5668	0.0	0.398
	45	0.0	0.1277	0.0539	0.0	0.0408	0.0	0.0003
	46	0.0	0.0524	0.0010	0.0	0.0006	0.0	0.0000
	47	0.0	0.0070	0.0000	0.0	0.0000	0.0	0.0000

(CONT'D.)

MASS NO.	ATOMIC NO.	232PU					
		233U	234U	235U	238U	239PU	240PU
41	41	0.0	0.0000	0.0	0.0	0.0000	0.0
42	42	0.0	0.0049	0.0	0.0	0.0017	0.0
43	43	0.0	0.0010	0.0	0.0	0.0002	0.0
44	44	0.0	0.0013	0.0	0.0	0.0002	0.0
45	45	0.0	0.0117	0.0	0.0	0.0001	0.0
46	46	0.0	0.0117	0.0	0.0	0.0001	0.0
47	47	0.0	0.0002	0.0	0.0	0.0001	0.0
48	48	0.0	0.0000	0.0	0.0	0.0000	0.0
110	41	0.0	0.0	0.0	0.0	0.0	0.0000
42	42	0.0	0.0001	0.0	0.0	0.0002	0.0
43	43	0.0	0.0177	0.0	0.0	0.0051	0.0
44	44	0.0	0.3752	0.0	0.0	0.2510	0.0
45	45	0.0	0.4446	0.0	0.0	0.4152	0.0
46	46	0.0	0.1470	0.0	0.0	0.0963	0.0
47	47	0.0	0.0023	0.0	0.0	0.0008	0.0
48	48	0.0	0.0000	0.0	0.0	0.0000	0.0
111	41	0.0	0.0	0.0	0.0	0.0000	0.0
42	42	0.0	0.0000	0.0	0.0	0.0000	0.0
43	43	0.0	0.0021	0.0	0.0	0.0051	0.0
44	44	0.0	0.1717	0.0	0.0	0.1790	0.0
45	45	0.0	0.3705	0.0	0.0	0.2764	0.0
46	46	0.0	0.4468	0.0	0.0	0.4534	0.0
47	47	0.0	0.3687	0.0	0.0	0.2510	0.0
48	48	0.0	0.0103	0.0	0.0	0.0051	0.0
49	49	0.0	0.0001	0.0	0.0	0.0000	0.0
112	42	0.0	0.0	0.0	0.0	0.0000	0.0
43	43	0.0	0.0019	0.0	0.0	0.0000	0.0
44	44	0.0	0.0034	0.0	0.0	0.0000	0.0
45	45	0.0	0.3692	0.0	0.0	0.4226	0.0
46	46	0.0	0.6309	0.0	0.0	0.6290	0.0
47	47	0.0	0.0002	0.0	0.0	0.0202	0.0
48	48	0.0	0.0103	0.0	0.0	0.0002	0.0
49	49	0.0	0.0000	0.0	0.0	0.0000	0.0
113	42	0.0	0.0	0.0	0.0	0.0000	0.0
43	43	0.0	0.0000	0.0	0.0	0.0001	0.0
44	44	0.0	0.0153	0.0	0.0	0.0303	0.0
45	45	0.0	0.1914	0.0	0.0	0.2764	0.0
46	46	0.0	0.6942	0.0	0.0	0.6290	0.0
47	47	0.0	0.0932	0.0	0.0	0.0624	0.0
48	48	0.0	0.034	0.0	0.0	0.014	0.0
49	49	0.0	0.0053	0.0	0.0	0.0000	0.0
114	42	0.0	0.0	0.0	0.0	0.0000	0.0
43	43	0.0	0.0000	0.0	0.0	0.0000	0.0
44	44	0.0	0.0079	0.0	0.0	0.0069	0.0
45	45	0.0	0.9863	0.0	0.0	0.1429	0.0
46	46	0.0	0.6901	0.0	0.0	0.6931	0.0
47	47	0.0	0.2029	0.0	0.0	0.1495	0.0
48	48	0.0	0.0174	0.0	0.0	0.0076	0.0
49	49	0.0	0.0000	0.0	0.0	0.0000	0.0
115	42	0.0	0.0	0.0	0.0	0.0000	0.0
43	43	0.0	0.0034	0.0	0.0	0.0010	0.0
44	44	0.0	0.0000	0.0	0.0	0.0000	0.0
45	45	0.0	0.0276	0.0	0.0	0.024	0.0
46	46	0.0	0.5321	0.0	0.0	0.6045	0.0
47	47	0.0	0.3625	0.0	0.0	0.3236	0.0
48	48	0.0	0.0766	0.0	0.0	0.183	0.0
49	49	0.0	0.0005	0.0	0.0	0.0002	0.0
116	42	0.0	0.0	0.0	0.0	0.0000	0.0
43	43	0.0	0.0010	0.0	0.0	0.0000	0.0
44	44	0.0	0.0000	0.0	0.0	0.0000	0.0
45	45	0.0	0.0000	0.0	0.0	0.0000	0.0
46	46	0.0	0.0000	0.0	0.0	0.0000	0.0
47	47	0.0	0.0000	0.0	0.0	0.0000	0.0
48	48	0.0	0.0000	0.0	0.0	0.0000	0.0
49	49	0.0	0.0000	0.0	0.0	0.0000	0.0

(CONT'D.)

MASS NO.	ATOMIC NO.	232PU					
		233U	234U	235U	238U	239PU	240PU
113	42	0.0	0.0	0.0	0.0	0.0	0.0000
43	43	0.0	0.0000	0.0	0.0	0.0001	0.0013
44	44	0.0	0.0153	0.0	0.0	0.0303	0.0899
45	45	0.0	0.1914	0.0	0.0	0.2764	0.5395
46	46	0.0	0.6942	0.0	0.0	0.6290	0.3468
47	47	0.0	0.0932	0.0	0.0	0.0624	0.0226
48	48	0.0	0.034	0.0	0.0	0.014	0.0001
49	49	0.0	0.0053	0.0	0.0	0.0000	0.0000
114	42	0.0	0.0	0.0	0.0	0.0	0.0000
43	43	0.0	0.0000	0.0	0.0	0.0000	0.0002
44	44	0.0	0.0079	0.0	0.0	0.0069	0.0284
45	45	0.0	0.9863	0.0	0.0	0.1429	0.3792
46	46	0.0	0.6901	0.0	0.0	0.6931	0.5165
47	47	0.0	0.2029	0.0	0.0	0.1495	0.0749
48	48	0.0	0.0174	0.0	0.0	0.0076	0.0010
49	49	0.0	0.0000	0.0	0.0	0.0000	0.0000
115	42	0.0	0.0	0.0	0.0	0.0	0.0000
43	43	0.0	0.0034	0.0	0.0	0.0010	0.0056
44	44	0.0	0.0000	0.0	0.0	0.0000	0.0000
45	45	0.0	0.0276	0.0	0.0	0.024	0.1914
46	46	0.0	0.5321	0.0	0.0	0.6045	0.5444
47	47	0.0	0.3625	0.0	0.0	0.3236	0.2006
48	48	0.0	0.0766	0.0	0.0	0.183	0.0564
49	49	0.0	0.0005	0.0	0.0	0.0002	0.0000
116	42	0.0	0.0	0.0	0.0	0.0	0.0000
43	43	0.0	0.0010	0.0	0.0	0.0000	0.0000
44	44	0.0	0.0000	0.0	0.0	0.0000	0.0004
45	45	0.0	0.0000	0.0	0.0	0.0000	0.0004
46	46	0.0	0.0000	0.0	0.0	0.0000	0.0002
47	47	0.0	0.0000	0.0	0.0	0.0000	0.0002
48	48	0.0	0.0000	0.0	0.0	0.0000	0.0000
49	49	0.0	0.0000	0.0	0.0	0.0000	0.0000

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TABLE 15. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION. (CONT.)

Mass No.	Atomic No.	233U	233J	235U	238U	239PU	240PU	241PU
111	43	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	44	0.0	0.0	0.0001	0.0	0.0000	0.0	0.0000
	45	0.0	0.0004	0.0111	0.0	0.0010	0.0	0.0033
	46	0.0	0.0715	0.3352	0.0	0.1059	0.0	0.1436
	47	0.0	0.3543	0.4761	0.0	0.4261	0.0	0.5846
	48	0.0	0.5435	0.1739	0.0	0.4472	0.0	0.2576
	49	0.0	0.0295	0.0028	0.0	0.0196	0.0	0.0112
	50	0.0	0.0004	0.0000	0.0	0.0002	0.0	0.0000
	51	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0
112	44	0.0	0.0	0.0000	0.0	0.0	0.0	0.0
	45	0.0	0.0001	0.0009	0.0	0.0004	0.0	0.0005
	46	0.0	0.0276	0.0975	0.0	0.0599	0.0	0.0525
	47	0.0	0.2472	0.4284	0.0	0.3574	0.0	0.4671
	48	0.0	0.6589	0.4507	0.0	0.5461	0.0	0.4372
	49	0.0	0.1220	0.0521	0.0	0.0874	0.0	0.0427
	50	0.0	0.0058	0.0009	0.0	0.0026	0.0	0.0014
	51	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0000
121	44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	45	0.0	0.0000	0.0002	0.0	0.0001	0.0	0.0001
	46	0.0	0.0003	0.0392	0.0	0.0185	0.0	0.0218
	47	0.0	0.1527	0.3162	0.0	0.2248	0.0	0.3414
	48	0.0	0.7398	0.5907	0.0	0.6667	0.0	0.5430
	49	0.0	0.1220	0.0521	0.0	0.0874	0.0	0.0926
	50	0.0	0.0016	0.002	0.0	0.0005	0.0	0.0004
	51	0.0	0.0000	0.0	0.0	0.0000	0.0	0.0000
122	44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	45	0.0	0.0007	0.0042	0.0	0.0000	0.0	0.0000
	46	0.0	0.0337	0.1161	0.0	0.0013	0.0	0.0028
	47	0.0	0.5914	0.6768	0.0	0.0608	0.0	0.1329
	48	0.0	0.3160	0.1904	0.0	0.6251	0.0	0.5791
	49	0.0	0.0516	0.0118	0.0	0.2811	0.0	0.2728
	50	0.0	0.0002	0.0000	0.0	0.0315	0.0	0.0127
	51	0.0	0.0	0.0000	0.0	0.0001	0.0	0.0002
	52	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000
123	45	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000
	46	0.0	0.0002	0.0012	0.0	0.0003	0.0	0.0003
	47	0.0	0.0193	0.0606	0.0	0.0282	0.0	0.0773
	48	0.0	0.4717	0.6118	0.0	0.5071	0.0	0.5206
	49	0.0	0.4038	0.2932	0.0	0.3874	0.0	0.3738
	50	0.0	0.1068	0.0323	0.0	0.0764	0.0	0.0275
	51	0.0	0.0009	0.0001	0.0	0.0005	0.0	0.0002
	52	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000
124	45	0.0	0.0	0.0001	0.0	0.0000	0.0	0.0000
	46	0.0	0.0000	0.0065	0.0	0.0000	0.0	0.0000
	47	0.0	0.0076	0.0720	0.0	0.0091	0.0	0.0003
	48	0.0	0.4717	0.4504	0.0	0.3238	0.0	0.0412
	49	0.0	0.4586	0.3259	0.0	0.4262	0.0	0.4321
	50	0.0	0.2066	0.1376	0.0	0.4769	0.0	0.4719
	51	0.0	0.0030	0.0065	0.0	0.1930	0.0	0.0543
	52	0.0	0.0003	0.002	0.0	0.0027	0.0	0.0005
	53	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000

TABLE 15. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION. (CONT.)

Mass No.	Atomic No.	232Th	233U	235U	238U	239PU	240PU	241PU
121	44	0.0	0.0	0.0000	0.0	0.0	0.0	0.0
	45	0.0	0.0000	0.0012	0.0	0.0000	0.0	0.0000
	46	0.0	0.0025	0.0497	0.0	0.0047	0.0	0.0082
	47	0.0	0.0798	0.2206	0.0	0.1185	0.0	0.2236
	48	0.0	0.6829	0.5490	0.0	0.6892	0.0	0.5932
	49	0.0	0.2146	0.1542	0.0	0.1776	0.0	0.1707
	50	0.0	0.0198	0.0241	0.0	0.0109	0.0	0.0047
	51	0.0	0.0001	0.0004	0.0	0.0000	0.0	0.0000
	52	0.0	0.0	0.0000	0.0	0.0	0.0	0.0
122	45	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000
	46	0.0	0.0007	0.0042	0.0	0.0013	0.0	0.0028
	47	0.0	0.0337	0.1161	0.0	0.0608	0.0	0.1329
	48	0.0	0.5914	0.6768	0.0	0.6251	0.0	0.5791
	49	0.0	0.3160	0.1904	0.0	0.2811	0.0	0.2728
	50	0.0	0.0516	0.0118	0.0	0.0315	0.0	0.0127
	51	0.0	0.0002	0.0000	0.0	0.0001	0.0	0.0002
	52	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000
123	45	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000
	46	0.0	0.0002	0.0012	0.0	0.0003	0.0	0.0003
	47	0.0	0.0193	0.0606	0.0	0.0282	0.0	0.0773
	48	0.0	0.4717	0.6118	0.0	0.5071	0.0	0.5206
	49	0.0	0.4038	0.2932	0.0	0.3874	0.0	0.3738
	50	0.0	0.1068	0.0323	0.0	0.0764	0.0	0.0275
	51	0.0	0.0009	0.0001	0.0	0.0005	0.0	0.0002
	52	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000
124	45	0.0	0.0	0.0001	0.0	0.0000	0.0	0.0000
	46	0.0	0.0000	0.0065	0.0	0.0000	0.0	0.0000
	47	0.0	0.0076	0.0720	0.0	0.0091	0.0	0.0003
	48	0.0	0.4717	0.4504	0.0	0.3238	0.0	0.0412
	49	0.0	0.4586	0.3259	0.0	0.3292	0.0	0.4321
	50	0.0	0.2066	0.1376	0.0	0.4769	0.0	0.4719
	51	0.0	0.0030	0.0065	0.0	0.1930	0.0	0.0543
	52	0.0	0.0003	0.002	0.0	0.0027	0.0	0.0005
	53	0.0	0.0	0.0000	0.0	0.0000	0.0	0.0000

(CONT.)

TABLE 14. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION.

Nucleus	Atomic No.	232Th				233U				235U				239Pu				240Pu			
		232Th	233U	235U	238U	232Th	233U	235U	238U	232Th	233U	235U	238U	232Th	233U	235U	238U	232Th	233U	235U	238U
127	45	0.0	0.0	0.0	0.0	0.0000	0.0001	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	46	0.0	0.0	0.0	0.0	0.0006	0.0036	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	47	0.0	0.0	0.0	0.0	0.0024	0.0125	0.0	0.0	0.0056	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0001	0.0	0.0	0.0
	48	0.0	0.0	0.0	0.0	0.1962	0.3643	0.0	0.0	0.2624	0.0	0.0	0.0	0.1127	0.0	0.0	0.0	0.0193	0.0	0.0	0.0
	49	0.0	0.0	0.0	0.0	0.4525	0.4723	0.0	0.0	0.4876	0.0	0.0	0.0	0.4331	0.0	0.0	0.0	0.3253	0.0	0.0	0.0
	50	0.0	0.0	0.0	0.0	0.3434	0.1482	0.0	0.0	0.2398	0.0	0.0	0.0	0.1321	0.0	0.0	0.0	0.5530	0.0	0.0	0.0
	51	0.0	0.0	0.0	0.0	0.0091	0.0019	0.0	0.0	0.0746	0.0	0.0	0.0	0.0002	0.0	0.0	0.0	0.1010	0.0	0.0	0.0
	52	0.0	0.0	0.0	0.0	0.0001	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0017	0.0	0.0	0.0
127	45	0.0	0.0	0.0	0.0	0.0001	0.0001	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	46	0.0	0.0	0.0	0.0	0.0006	0.0359	0.0	0.0	0.0011	0.0	0.0	0.0	0.1127	0.0	0.0	0.0	0.0075	0.0	0.0	0.0
	47	0.0	0.0	0.0	0.0	0.0849	0.2758	0.0	0.0	0.2142	0.0	0.0	0.0	0.4331	0.0	0.0	0.0	0.5945	0.0	0.0	0.0
	48	0.0	0.0	0.0	0.0	0.3745	0.3281	0.0	0.0	0.3574	0.0	0.0	0.0	0.5661	0.0	0.0	0.0	0.1790	0.0	0.0	0.0
	49	0.0	0.0	0.0	0.0	0.5145	0.3064	0.0	0.0	0.4348	0.0	0.0	0.0	0.1339	0.0	0.0	0.0	0.0051	0.0	0.0	0.0
	50	0.0	0.0	0.0	0.0	0.0249	0.0444	0.0	0.0	0.0182	0.0	0.0	0.0	0.0002	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	51	0.0	0.0	0.0	0.0	0.0013	0.0049	0.0	0.0	0.0002	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	52	0.0	0.0	0.0	0.0	0.0000	0.0001	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	53	0.0	0.0	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	54	0.0	0.0	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
127	46	0.0	0.0	0.0	0.0	0.0001	0.0001	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	47	0.0	0.0	0.0	0.0	0.0001	0.0063	0.0	0.0	0.0446	0.0	0.0	0.0	0.0446	0.0	0.0	0.0	0.0561	0.0	0.0	0.0
	48	0.0	0.0	0.0	0.0	0.0312	0.1598	0.0	0.0	0.2245	0.0	0.0	0.0	0.0035	0.0	0.0	0.0	0.1260	0.0	0.0	0.0
	49	0.0	0.0	0.0	0.0	0.2569	0.3713	0.0	0.0	0.4767	0.0	0.0	0.0	0.5917	0.0	0.0	0.0	0.5748	0.0	0.0	0.0
	50	0.0	0.0	0.0	0.0	0.6482	0.4156	0.0	0.0	0.4269	0.0	0.0	0.0	0.1330	0.0	0.0	0.0	0.3253	0.0	0.0	0.0
	51	0.0	0.0	0.0	0.0	0.0588	0.0440	0.0	0.0	0.0358	0.0	0.0	0.0	0.0154	0.0	0.0	0.0	0.5530	0.0	0.0	0.0
	52	0.0	0.0	0.0	0.0	0.014	0.0214	0.0	0.0	0.0005	0.0	0.0	0.0	0.0143	0.0	0.0	0.0	0.1010	0.0	0.0	0.0
	53	0.0	0.0	0.0	0.0	0.0002	0.0337	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	54	0.0	0.0	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
129	46	0.0	0.0	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	47	0.0	0.0	0.0	0.0	0.0442	0.0442	0.0	0.0	0.0446	0.0	0.0	0.0	0.0446	0.0	0.0	0.0	0.0561	0.0	0.0	0.0
	48	0.0	0.0	0.0	0.0	0.1457	0.0069	0.0	0.0	0.2245	0.0	0.0	0.0	0.1021	0.0	0.0	0.0	0.4767	0.0	0.0	0.0
	49	0.0	0.0	0.0	0.0	0.5760	0.7972	0.0	0.0	0.5917	0.0	0.0	0.0	0.6796	0.0	0.0	0.0	0.3253	0.0	0.0	0.0
	50	0.0	0.0	0.0	0.0	0.1606	0.2050	0.0	0.0	0.2005	0.0	0.0	0.0	0.2005	0.0	0.0	0.0	0.1010	0.0	0.0	0.0
	51	0.0	0.0	0.0	0.0	0.0339	0.0002	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0017	0.0	0.0	0.0
	52	0.0	0.0	0.0	0.0	0.0001	0.0001	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	53	0.0	0.0	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	54	0.0	0.0	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
130	47	0.0	0.0	0.0	0.0	0.0001	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	48	0.0	0.0	0.0	0.0	0.0550	0.0594	0.0	0.0	0.0470	0.0	0.0	0.0	0.5014	0.0	0.0	0.0	0.1436	0.0	0.0	0.0
	49	0.0	0.0	0.0	0.0	0.3923	0.5584	0.0	0.0	0.3514	0.0	0.0	0.0	0.2576	0.0	0.0	0.0	0.5846	0.0	0.0	0.0
	50	0.0	0.0	0.0	0.0	0.3342	0.4236	0.0	0.0	0.3514	0.0	0.0	0.0	0.3514	0.0	0.0	0.0	0.2576	0.0	0.0	0.0
	51	0.0	0.0	0.0	0.0	0.2221	0.0585	0.0	0.0	0.0969	0.0	0.0	0.0	0.0112	0.0	0.0					

(CONT.)

MASS NO.	ATOMIC NO.	ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION.					
		232PU	233U	235U	238U	239PU	240PU
48	48	0.0	0.0	0.0	0.0	0.0	0.0
49	49	0.0	0.0	0.0000	0.0127	0.0	0.0002
50	50	0.0	0.0004	0.0003	0.0	0.0277	0.0
51	51	0.0	0.0709	0.3303	0.0	0.2075	0.0
52	52	0.0	0.3163	0.6266	0.0	0.6230	0.0
53	53	0.0	0.110	0.2197	0.0	0.1307	0.0
54	54	0.0	0.0011	0.0000	0.0	0.0107	0.0
55	55	0.0	0.0003	0.0	0.0001	0.0	0.0000
134	48	0.0	0.0	0.0000	0.0	0.0	0.0
49	49	0.0	0.0	0.0016	0.0	0.0000	0.0
50	50	0.0	0.0004	0.0047	0.0	0.0013	0.0
51	51	0.0	0.0306	0.1732	0.0	0.0608	0.0
52	52	0.0	0.5491	1.5006	0.0	0.6251	0.0
53	53	0.0	0.3501	0.2117	0.0	0.2811	0.0
54	54	0.0	0.0693	0.0655	0.0	0.0315	0.0
55	55	0.0	0.0004	0.0029	0.0	0.0001	0.0
56	56	0.0	0.0003	0.0001	0.0	0.0000	0.0
135	49	0.0	0.0	0.0	0.0	0.0	0.0
50	50	0.0	0.0000	0.0000	0.0	0.0001	0.0
51	51	0.0	0.0004	0.0008	0.0	0.0088	0.0
52	52	0.0	0.2987	0.5163	0.0	0.3121	0.0
53	53	0.0	0.4627	0.4434	0.0	0.4739	0.0
54	54	0.0	0.2281	0.0308	0.0	0.2015	0.0
55	55	0.0	0.0016	0.0000	0.0	0.0035	0.0
56	56	0.0	0.0000	0.0	0.0000	0.0	0.0000
136	49	0.0	0.0	0.0	0.0	0.0	0.0
50	50	0.0	0.0	0.0000	0.0	0.0001	0.0
51	51	0.0	0.0000	0.0076	0.0	0.0000	0.0
52	52	0.0	0.0411	0.3564	0.0	0.0000	0.0
53	53	0.0	0.4175	0.5081	0.0	0.2267	0.0
54	54	0.0	0.5381	0.1264	0.0	0.7628	0.0
55	55	0.0	0.0099	0.0008	0.0	0.0077	0.0
56	56	0.0	0.0000	0.0000	0.0	0.0000	0.0
137	50	0.0	0.0	0.0	0.0	0.0	0.0
51	51	0.0	0.0000	0.0000	0.0	0.0004	0.0
52	52	0.0	0.0086	0.0223	0.0	0.0492	0.0
53	53	0.0	0.1861	0.3851	0.0	0.3010	0.0
54	54	0.0	0.7327	0.5769	0.0	0.5853	0.0
55	55	0.0	0.0712	0.0149	0.0	0.0421	0.0
56	56	0.0	0.0011	0.0000	0.0	0.0019	0.0
57	57	0.0	0.0000	0.0000	0.0	0.0000	0.0
138	50	0.0	0.0	0.0	0.0	0.0	0.0
51	51	0.0	0.0	0.0	0.0	0.0005	0.0
52	52	0.0	0.0022	0.0	0.0015	0.0	0.0000
53	53	0.0	0.0552	0.1864	0.0	0.0015	0.0
54	54	0.0	0.8037	0.7662	0.0	0.0022	0.0
55	55	0.0	0.1038	0.0445	0.0	0.1050	0.0
56	56	0.0	0.0000	0.0001	0.0	0.0007	0.0
57	57	0.0	0.0	0.0	0.0	0.0000	0.0
139	51	0.0	0.0000	0.0000	0.0	0.0000	0.0
52	52	0.0	0.0116	0.0733	0.0	0.0000	0.0
53	53	0.0	0.312	0.1126	0.0	0.0078	0.0
54	54	0.0	0.5150	0.6925	0.0	0.5910	0.0
55	55	0.0	0.3350	0.1815	0.0	0.3172	0.0
56	56	0.0	0.3353	0.0090	0.0	0.0430	0.0
57	57	0.0	0.0116	0.0000	0.0	0.0002	0.0
58	58	0.0	0.0000	0.0	0.0000	0.0	0.0000

(CONT.)

TABLE Ie. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION.

MASS NO.	ATOMIC NO.	ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION.					
		232PU	233U	235U	238U	239PU	240PU
137	50	0.0	0.0	0.0	0.0	0.0	0.0000
51	51	0.0	0.0000	0.0000	0.0	0.0004	0.0000
52	52	0.0	0.0086	0.0223	0.0	0.0492	0.0027
53	53	0.0	0.1861	0.3851	0.0	0.3010	0.1294
54	54	0.0	0.7327	0.5769	0.0	0.5853	0.5770
55	55	0.0	0.0712	0.0149	0.0	0.0421	0.0133
56	56	0.0	0.0011	0.0000	0.0	0.0019	0.0001
57	57	0.0	0.0000	0.0000	0.0	0.0000	0.0
138	50	0.0	0.0	0.0	0.0	0.0	0.0000
51	51	0.0	0.0	0.0	0.0	0.0005	0.0000
52	52	0.0	0.0022	0.0	0.0005	0.0	0.0000
53	53	0.0	0.0552	0.1864	0.0	0.0015	0.0000
54	54	0.0	0.8037	0.7662	0.0	0.0022	0.0000
55	55	0.0	0.1038	0.0445	0.0	0.1050	0.0000
56	56	0.0	0.0000	0.0001	0.0	0.0007	0.0000
57	57	0.0	0.0	0.0	0.0	0.0000	0.0000
58	58	0.0	0.0000	0.0	0.0000	0.0	0.0000
139	51	0.0	0.0000	0.0000	0.0	0.0	0.0000
52	52	0.0	0.0116	0.0733	0.0	0.0000	0.0000
53	53	0.0	0.312	0.1126	0.0	0.0078	0.0000
54	54	0.0	0.5150	0.6925	0.0	0.5910	0.0000
55	55	0.0	0.3350	0.1815	0.0	0.3172	0.0000
56	56	0.0	0.3353	0.0090	0.0	0.0430	0.0054
57	57	0.0	0.0116	0.0000	0.0	0.0002	0.0000
58	58	0.0	0.0000	0.0	0.0000	0.0	0.0000
59	59	0.0	0.0	0.0	0.0	0.0	0.0000
60	60	0.0	0.0	0.0	0.0	0.0	0.0000
61	61	0.0	0.0000	0.0002	0.0	0.0	0.0000
62	62	0.0	0.0000	0.0141	0.0	0.0001	0.0010
63	63	0.0	0.0000	0.0141	0.0	0.0001	0.0010
64	64	0.0	0.0000	0.0141	0.0	0.0001	0.0010
65	65	0.0	0.0000	0.0141	0.0	0.0001	0.0010
66	66	0.0	0.0000	0.0141	0.0	0.0001	0.0010
67	67	0.0	0.0000	0.0141	0.0	0.0001	0.0010
68	68	0.0	0.0000	0.0141	0.0	0.0001	0.0010

• *INDUSTRIE UND WIRTSCHAFT* (1910).

نام	نام پدر	جایزه	نام مادر	جایزه
۱۴۴	۵۳	۰.۰	۰.۰	۰.۰
۱۴۳	۶۲	۰.۰	۰.۰	۰.۰
۱۴۲	۶۱	۰.۰	۰.۰	۰.۰
۱۴۱	۶۰	۰.۰	۰.۰	۰.۰
۱۴۰	۵۹	۰.۰	۰.۰	۰.۰
۱۳۹	۵۸	۰.۰	۰.۰	۰.۰
۱۳۸	۵۷	۰.۰	۰.۰	۰.۰
۱۳۷	۵۶	۰.۰	۰.۰	۰.۰
۱۳۶	۵۵	۰.۰	۰.۰	۰.۰
۱۳۵	۵۴	۰.۰	۰.۰	۰.۰
۱۳۴	۵۳	۰.۰	۰.۰	۰.۰
۱۳۳	۵۲	۰.۰	۰.۰	۰.۰
۱۳۲	۵۱	۰.۰	۰.۰	۰.۰
۱۳۱	۵۰	۰.۰	۰.۰	۰.۰
۱۳۰	۴۹	۰.۰	۰.۰	۰.۰
۱۲۹	۴۸	۰.۰	۰.۰	۰.۰
۱۲۸	۴۷	۰.۰	۰.۰	۰.۰
۱۲۷	۴۶	۰.۰	۰.۰	۰.۰
۱۲۶	۴۵	۰.۰	۰.۰	۰.۰
۱۲۵	۴۴	۰.۰	۰.۰	۰.۰
۱۲۴	۴۳	۰.۰	۰.۰	۰.۰
۱۲۳	۴۲	۰.۰	۰.۰	۰.۰
۱۲۲	۴۱	۰.۰	۰.۰	۰.۰
۱۲۱	۴۰	۰.۰	۰.۰	۰.۰
۱۲۰	۳۹	۰.۰	۰.۰	۰.۰
۱۱۹	۳۸	۰.۰	۰.۰	۰.۰
۱۱۸	۳۷	۰.۰	۰.۰	۰.۰
۱۱۷	۳۶	۰.۰	۰.۰	۰.۰
۱۱۶	۳۵	۰.۰	۰.۰	۰.۰
۱۱۵	۳۴	۰.۰	۰.۰	۰.۰
۱۱۴	۳۳	۰.۰	۰.۰	۰.۰
۱۱۳	۳۲	۰.۰	۰.۰	۰.۰
۱۱۲	۳۱	۰.۰	۰.۰	۰.۰
۱۱۱	۳۰	۰.۰	۰.۰	۰.۰
۱۱۰	۲۹	۰.۰	۰.۰	۰.۰
۱۰۹	۲۸	۰.۰	۰.۰	۰.۰
۱۰۸	۲۷	۰.۰	۰.۰	۰.۰
۱۰۷	۲۶	۰.۰	۰.۰	۰.۰
۱۰۶	۲۵	۰.۰	۰.۰	۰.۰
۱۰۵	۲۴	۰.۰	۰.۰	۰.۰
۱۰۴	۲۳	۰.۰	۰.۰	۰.۰
۱۰۳	۲۲	۰.۰	۰.۰	۰.۰
۱۰۲	۲۱	۰.۰	۰.۰	۰.۰
۱۰۱	۲۰	۰.۰	۰.۰	۰.۰
۱۰۰	۱۹	۰.۰	۰.۰	۰.۰
۹۹	۱۸	۰.۰	۰.۰	۰.۰
۹۸	۱۷	۰.۰	۰.۰	۰.۰
۹۷	۱۶	۰.۰	۰.۰	۰.۰
۹۶	۱۵	۰.۰	۰.۰	۰.۰
۹۵	۱۴	۰.۰	۰.۰	۰.۰
۹۴	۱۳	۰.۰	۰.۰	۰.۰
۹۳	۱۲	۰.۰	۰.۰	۰.۰
۹۲	۱۱	۰.۰	۰.۰	۰.۰
۹۱	۱۰	۰.۰	۰.۰	۰.۰
۹۰	۹	۰.۰	۰.۰	۰.۰
۸۹	۸	۰.۰	۰.۰	۰.۰
۸۸	۷	۰.۰	۰.۰	۰.۰
۸۷	۶	۰.۰	۰.۰	۰.۰
۸۶	۵	۰.۰	۰.۰	۰.۰
۸۵	۴	۰.۰	۰.۰	۰.۰
۸۴	۳	۰.۰	۰.۰	۰.۰
۸۳	۲	۰.۰	۰.۰	۰.۰
۸۲	۱	۰.۰	۰.۰	۰.۰
۸۱	۰	۰.۰	۰.۰	۰.۰

ADJUSTED PAC-1000 INDEPENDENT VIEWS FOR THERMAL FISSURES. (CONT'D.)

TABLE I. ADJUSTED FRACTIONAL YIELD DEPENDENT YIELDS FOR THERMAL FISSION.

TABLE II. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION.

(CONT.)

MASS NO.	ATOMIC NO.	232-U	233-U	234-U	235-U	236-U	237-U	238-U	239-U	240-U	241-U
58	58	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0	0.0	0.0000	0.0047
59	59	0.0	0.0	0.0012	0.0	0.0072	0.0	0.0	0.0	0.0000	0.0047
60	60	0.0	0.0	0.0174	0.0174	0.0030	0.0	0.0430	0.0	0.0000	0.0047
61	61	0.0	0.0	0.0229	0.0229	0.0449	0.0	0.3172	0.0	0.0000	0.0047
62	62	0.0	0.0	0.0001	0.0001	0.0139	0.0	0.5910	0.0	0.0000	0.0047
63	63	0.0	0.0	0.0003	0.0003	0.0172	0.0	0.0478	0.0	0.0000	0.0047
64	64	0.0	0.0	0.0029	0.0001	0.0000	0.0	0.0000	0.0	0.0000	0.0047
65	65	0.0	0.0	0.0000	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0047
66	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	0.0047
67	59	0.0	0.0	0.0000	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0047
68	60	0.0	0.0	0.0029	0.0010	0.0000	0.0	0.0087	0.0	0.0000	0.0047
69	61	0.0	0.0	0.0003	0.0000	0.0056	0.0	0.0013	0.0	0.0000	0.0047
70	62	0.0	0.0	0.0267	0.0267	0.1341	0.0	0.0608	0.0	0.0000	0.0047
71	63	0.0	0.0	0.0253	0.0253	0.0826	0.0	0.0251	0.0	0.0000	0.0047
72	64	0.0	0.0	0.0365	0.0365	0.1679	0.0	0.2611	0.0	0.0000	0.0047
73	65	0.0	0.0	0.0793	0.0090	0.0000	0.0	0.0315	0.0	0.0000	0.0047
74	66	0.0	0.0	0.0005	0.0000	0.0000	0.0	0.0001	0.0	0.0000	0.0047
75	67	0.0	0.0	0.0000	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0047
76	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	0.0047
77	59	0.0	0.0	0.0000	0.0000	0.0000	0.0	0.0001	0.0	0.0000	0.0047
78	60	0.0	0.0	0.0053	0.0053	0.0086	0.0	0.0162	0.0	0.0000	0.0047
79	61	0.0	0.0	0.0274	0.0274	0.6425	0.0	0.4160	0.0	0.0000	0.0047
80	62	0.0	0.0	0.4648	0.4648	0.3425	0.0	0.4429	0.0	0.0000	0.0047
81	63	0.0	0.0	0.2508	0.2508	0.0057	0.0	0.1235	0.0	0.0000	0.0047
82	64	0.0	0.0	0.0044	0.0000	0.0000	0.0	0.0013	0.0	0.0000	0.0047
83	65	0.0	0.0	0.0000	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0047
84	66	0.0	0.0	0.0000	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0047
85	59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0000	0.0047
86	60	0.0	0.0	0.0000	0.0000	0.0000	0.0	0.0001	0.0	0.0000	0.0047
87	61	0.0	0.0	0.0053	0.0053	0.0086	0.0	0.0162	0.0	0.0000	0.0047
88	62	0.0	0.0	0.2744	0.2744	0.6425	0.0	0.4160	0.0	0.0000	0.0047
89	63	0.0	0.0	0.4648	0.4648	0.3425	0.0	0.4429	0.0	0.0000	0.0047
90	64	0.0	0.0	0.2508	0.2508	0.0057	0.0	0.1235	0.0	0.0000	0.0047
91	65	0.0	0.0	0.0044	0.0000	0.0000	0.0	0.0013	0.0	0.0000	0.0047
92	66	0.0	0.0	0.0000	0.0000	0.0000	0.0	0.0000	0.0	0.0000	0.0047

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TABLE II. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR THERMAL FISSION.

(CONT.)

MASS NO.	ATOMIC NO.	232-U	233-U	234-U	235-U	236-U	237-U	238-U	239-U	240-U	241-U
59	59	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0000	0.0	0.0000	0.0000
60	60	0.0	0.0	0.0000	0.0000	0.0001	0.0	0.0000	0.0	0.0000	0.0000
61	61	0.0	0.0	0.0007	0.0007	0.0110	0.0	0.0027	0.0	0.0000	0.0000
62	62	0.0	0.0	0.0038	0.0038	0.3458	0.0	0.1830	0.0	0.0000	0.0000
63	63	0.0	0.0	0.3961	0.4762	0.0	0.0	0.4769	0.0	0.0000	0.0000
64	64	0.0	0.0	0.4764	0.1610	0.0	0.0	0.3282	0.0	0.0000	0.0000
65	65	0.0	0.0	0.0223	0.0223	0.0022	0.0	0.0091	0.0	0.0000	0.0000
66	66	0.0	0.0	0.0052	0.0052	0.0000	0.0	0.0000	0.0	0.0000	0.0000
67	67	0.0	0.0	0.0005	0.0005	0.0000	0.0	0.0000	0.0	0.0000	0.0000

(CONT.)

תְּהִלָּה וְעַמְּדָה בְּבֵית יְהוָה בְּבֵית מִזְבֵּחַ

TABLE 16.—ADJUSTED CRIMINAL VANDALISM BY MEANS AND LAST EXPONENTIAL

TABLE 15. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR FAST FISSION.

(CONT.)

MASS NO.	ATOMIC NO.	233TH	243U	245U	238U	236PU	240PU	241PU
31	29	0.3000	0.0	0.0	0.0000	0.0	0.0	0.0000
30	30	0.0001	0.0007	0.0049	0.0002	0.0005	0.0005	0.0011
31	31	0.1460	0.0446	0.1749	0.0265	0.0543	0.0543	0.0822
32	32	0.5765	0.4402	0.5672	0.5941	0.4956	0.4724	0.5284
33	33	0.5671	0.4178	0.3391	0.5149	0.3917	0.4325	0.3630
34	34	0.0122	0.1249	0.0473	0.0078	0.0817	0.0412	0.0254
35	35	0.0006	0.0011	0.0003	0.0000	0.0006	0.0003	0.0001
36	36	0.0	0.0000	0.0000	0.0	0.0000	0.0000	0.0000
42	30	0.0003	0.0	0.0001	0.0006	0.0003	0.0000	0.0001
31	31	0.0313	0.0006	0.0101	0.0561	0.0137	0.0112	0.0193
32	32	0.4202	0.1486	0.3325	0.4764	0.786	0.2579	0.3253
33	33	0.4804	0.5298	0.4832	0.4270	0.4147	0.5852	0.5530
34	34	0.0579	0.3132	0.1649	0.0348	0.1788	0.1437	0.1610
35	35	0.0006	0.0029	0.0025	0.0003	0.0137	0.0033	0.0017
36	36	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000
37	37	0.0	0.0	0.0	0.0	0.0000	0.0	0.0
43	30	0.0000	0.0	0.0	0.0000	0.0	0.0000	0.0000
31	31	0.0074	0.0002	0.0000	0.0122	0.0006	0.0016	0.0031
32	32	0.2138	0.0516	0.0613	0.2673	0.3790	0.0462	0.1400
33	33	0.5922	0.3162	0.5679	0.5812	0.3917	0.5503	0.5829
34	34	0.1786	0.5916	0.3677	0.3201	0.6754	0.5364	0.4767
35	35	0.0051	0.0397	0.0023	0.0030	0.0212	0.0201	0.0117
36	36	0.0000	0.0007	0.0000	0.0000	0.0063	0.0001	0.0000
37	37	0.0	0.0000	0.0	0.0	0.0000	0.0000	0.0000
44	30	0.0	0.0	0.0000	0.0000	0.0	0.0	0.0
31	31	0.0009	0.0000	0.0025	0.0018	0.0000	0.0001	0.0003
32	32	0.0713	0.0093	0.0170	0.0049	0.0265	0.0022	0.0398
33	33	0.5113	0.1527	0.2962	0.5562	0.7085	0.3525	0.4269
34	34	0.3837	0.2101	0.5137	0.3201	0.6754	0.5364	0.4767
35	35	0.0294	0.1220	0.0912	0.0185	0.0971	0.0873	0.0561
36	36	0.0002	0.0058	0.0080	0.0001	0.0031	0.0013	0.0006
37	37	0.0000	0.0000	0.0001	0.0000	0.0210	0.0098	0.0051
38	38	0.0	0.0000	0.0	0.0	0.0000	0.0000	0.0000
45	30	0.0000	0.0	0.0000	0.0000	0.0	0.0000	0.0000
31	31	0.0024	0.0001	0.0033	0.0042	0.0002	0.0004	0.0004
32	32	0.1224	0.0121	0.0638	0.1627	0.0211	0.0458	0.0726
33	33	0.5712	0.3081	0.3949	0.5004	0.5916	0.4596	0.5124
34	34	0.2877	0.4377	0.4377	0.3341	0.2331	0.4190	0.4578
35	35	0.0144	0.1097	0.2771	0.1790	0.0797	0.2374	0.2430
36	36	0.0020	0.0020	0.0366	0.0103	0.0011	0.0210	0.0098
37	37	0.0001	0.0017	0.0017	0.0022	0.0000	0.0001	0.0000
38	38	0.0	0.0000	0.0000	0.0	0.0	0.0000	0.0000
39	39	0.0	0.0000	0.0000	0.0	0.0000	0.0000	0.0000
46	31	0.0000	0.0	0.0000	0.0000	0.0	0.0000	0.0000
32	32	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
33	33	0.0319	0.0016	0.0380	0.0490	0.0038	0.0582	0.0151
34	34	0.3944	0.1492	0.4741	0.4575	0.2183	0.2238	0.2935
35	35	0.3029	0.4352	0.3826	0.4475	0.4856	0.5938	0.5700
36	36	0.0681	0.4014	0.1020	0.0458	0.2858	0.1709	0.1194
37	37	0.0008	0.0126	0.0116	0.0004	0.0067	0.0047	0.0023
38	38	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
39	39	0.0	0.0000	0.0	0.0	0.0000	0.0000	0.0000
40	40	0.0	0.0000	0.0	0.0	0.0000	0.0000	0.0000
41	41	0.0	0.0000	0.0	0.0	0.0000	0.0000	0.0000

TABLE 16. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR FAST FISSION.

(CONT.)

MASS NO.	ATOMIC NO.	232TH	233U	235U	238U	239PU	240PU	241PU
85	31	0.0001	0.0	0.0000	0.0002	0.0000	0.0000	0.0000
32	32	0.0170	0.0011	0.0049	0.0265	0.0022	0.0038	0.0075
33	33	0.5113	0.1527	0.2962	0.5562	0.7085	0.3525	0.4269
34	34	0.3837	0.2101	0.5137	0.3201	0.6754	0.5364	0.4767
35	35	0.0294	0.1220	0.0912	0.0185	0.0971	0.0873	0.0561
36	36	0.0002	0.0058	0.0080	0.0001	0.0031	0.0013	0.0006
37	37	0.0000	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000
38	38	0.0	0.0000	0.0	0.0	0.0000	0.0000	0.0000
39	39	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000
40	40	0.0	0.0000	0.0	0.0	0.0000	0.0000	0.0000
41	41	0.0	0.0000	0.0	0.0	0.0000	0.0000	0.0000
42	31	0.0	0.0000	0.0	0.0	0.0000	0.0000	0.0000
32	32	0.0054	0.0001	0.0422	0.0097	0.0000	0.0000	0.0000
33	33	0.1828	0.0300	0.2131	0.2380	0.0557	0.0750	0.1099
34	34	0.5937	0.2558	0.2493	0.5905	0.3487	0.5170	0.5620
35	35	0.2092	0.6522	0.3372	0.1588	0.5567	0.3795	0.3093
36	36	0.0071	0.0606	0.1059	0.0040	0.0382	0.0286	0.0171
37	37	0.3003	0.3010	0.0387	0.0000	0.0006	0.0002	0.0001
38	38	0.0	0.0000	0.0032	0.0	0.0000	0.0000	0.0000
39	39	0.0	0.0000	0.0003	0.0	0.0000	0.0000	0.0000
40	40	0.0	0.0000	0.0000	0.0	0.0000	0.0000	0.0000
41	41	0.0	0.0000	0.0000	0.0	0.0000	0.0000	0.0000

TABLE 16. A JUSTIFICATION FRACTIONAL INDEPENDENT YIELDS FOR FAST FISSION.

(CONT.)

MASS NO.	ATOMIC NO.	237TH	233U	235U	238U	239PU	240PU	241PU
30	32	0.0006	0.0	0.0	0.0000	0.0	0.0	0.0
31	33	0.0579	0.0001	0.0025	0.0847	0.0046	0.0164	0.0226
34	34	0.4904	0.0518	0.2116	0.5324	0.1532	0.3043	0.3945
35	35	0.4204	0.4612	0.7521	0.3577	0.7349	0.5653	0.5124
36	36	0.4204	0.5869	0.0230	0.0245	0.1354	0.1131	0.0726
37	37	0.0003	0.0002	0.0000	0.0001	0.0021	0.0002	0.0000
38	38	0.0003	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
39	39	0.0003	0.0	0.0	0.0000	0.0000	0.0000	0.0000
40	40	0.0000	0.0	0.0	0.0001	0.0	0.0	0.0
41	41	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
42	42	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
43	43	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
44	44	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
45	45	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
46	46	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
47	47	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
48	48	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
49	49	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
50	50	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
51	51	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
52	52	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
53	53	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
54	54	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0
55	55	0.0051	0.0001	0.0007	0.0094	0.0000	0.0	0.0000
56	56	0.1784	0.0288	0.1049	0.2380	0.0238	0.0683	0.1069
57	57	0.5933	0.7915	0.4679	0.5905	0.3404	0.5044	0.5591
58	58	0.0725	0.4491	0.1527	0.0507	0.3168	0.1876	0.1294
59	59	0.0009	0.0369	0.0014	0.0005	0.0043	0.0056	0.0027
60	60	0.0000	0.0016	0.0118	0.0000	0.0003	0.0006	0.0003
61	61	0.0	0.0	0.0011	0.0003	0.0000	0.0000	0.0000
62	62	0.0	0.0	0.0000	0.0	0.0	0.0	0.0
63	63	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64	64	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65	65	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66	66	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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TABLE 16. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR FAST FISSION.

(CONT.)

MASS NO.	ATOMIC NO.	237TH	233U	235U	238U	239PU	240PU	241PU
93	34	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0000
94	35	0.0051	0.0001	0.0007	0.0094	0.0000	0.0	0.0000
95	36	0.1784	0.0288	0.1049	0.2380	0.0238	0.0683	0.1069
96	37	0.4904	0.1083	0.1916	0.5361	0.1632	0.3792	0.5770
97	38	0.4204	0.4612	0.7521	0.3577	0.3523	0.6918	0.5680
98	39	0.1324	0.3524	0.5137	0.4624	0.3168	0.1876	0.1294
99	40	0.0028	0.0536	0.2201	0.0102	0.3885	0.0581	0.0370
100	41	0.0009	0.0001	0.0119	0.0000	0.0003	0.0006	0.0003
101	42	0.0	0.0	0.0011	0.0003	0.0000	0.0000	0.0000
102	43	0.0002	0.0001	0.0000	0.0004	0.0000	0.0000	0.0001
103	44	0.0296	0.0043	0.0067	0.0442	0.0008	0.0068	0.0133
104	45	0.2877	0.1558	0.3249	0.4424	0.1466	0.2053	0.2779
105	46	0.5113	0.3524	0.5137	0.4624	0.5317	0.5958	0.5770
106	47	0.0725	0.4491	0.1527	0.0507	0.3168	0.1876	0.1294
107	48	0.0009	0.0369	0.0014	0.0005	0.0043	0.0056	0.0027
108	49	0.0000	0.0016	0.0016	0.0001	0.0040	0.0241	0.0178
109	50	0.0	0.0	0.0000	0.0	0.0001	0.0002	0.0001
110	51	0.0	0.0	0.0000	0.0	0.0000	0.0000	0.0
111	52	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112	53	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113	54	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114	55	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115	56	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116	57	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117	58	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118	59	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119	60	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120	61	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121	62	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122	63	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123	64	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124	65	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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(CONT.)

TABLE 16. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR FAST FISSION.

			235U	235U	238U	239PU	240PU	241PU
41	36	37	0.00012	0.0	0.0000	0.0004	0.0000	0.0000
42	38	39	0.00007	0.00002	0.0100	0.0474	0.0031	0.0065
43	40	41	0.0822	0.0001	0.1441	0.1525	0.1116	0.2008
44	45	46	0.0071	0.00570	0.4861	0.4555	0.4255	0.5960
47	48	49	0.0762	0.00526	0.1562	0.0474	0.3439	0.1920
50	51	52	0.00011	0.00022	0.0019	0.0004	0.0119	0.1294
53	54	55	0.00009	0.00000	0.0000	0.0001	0.0001	0.0000
56	57	58	0.00000	0.00000	0.0	0.0000	0.0000	0.0000
59	60	61	0.00062	0.00001	0.0008	0.0127	0.0003	0.0000
62	63	64	0.00004	0.00000	0.0015	0.2729	0.0499	0.0705
65	66	67	0.0268	0.00002	0.2208	0.5792	0.2353	0.5087
68	69	70	0.5943	0.2515	0.4627	0.1329	0.5720	0.3903
71	72	73	0.1959	0.6558	0.0233	0.0028	0.0421	0.0308
74	75	76	0.0062	0.00000	0.0002	0.0000	0.0007	0.0001
77	78	79	0.00000	0.00000	0.0	0.0000	0.0000	0.0000
80	81	82	0.00062	0.00001	0.0001	0.0001	0.0000	0.0000
83	84	85	0.1954	0.00008	0.0024	0.3000	0.0000	0.0000
86	87	88	0.00008	0.00000	0.0173	0.0018	0.0000	0.0001
89	90	91	0.00001	0.00051	0.1348	0.1039	0.0100	0.0178
92	93	94	0.00000	0.00029	0.1137	0.2237	0.5562	0.3149
95	96	97	0.00000	0.00062	0.0708	0.3996	0.3201	0.6904
98	99	100	0.00000	0.00000	0.0016	0.0002	0.0007	0.0001
101	102	103	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
104	105	106	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
107	108	109	0.00001	0.00000	0.0000	0.0000	0.0000	0.0000
110	111	112	0.00000	0.00007	0.0042	0.0320	0.0016	0.0031
113	114	115	0.00000	0.00000	0.0001	0.0000	0.0000	0.0000
116	117	118	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
119	120	121	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
122	123	124	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
125	126	127	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
128	129	130	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
131	132	133	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
134	135	136	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
137	138	139	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
140	141	142	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
143	144	145	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
146	147	148	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
149	150	151	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
152	153	154	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
155	156	157	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
158	159	160	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
161	162	163	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
164	165	166	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
167	168	169	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
170	171	172	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
173	174	175	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
176	177	178	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
179	180	181	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
182	183	184	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
185	186	187	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
188	189	190	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
191	192	193	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
194	195	196	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
197	198	199	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
200	201	202	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
203	204	205	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
206	207	208	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
209	210	211	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
212	213	214	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
215	216	217	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
218	219	220	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
221	222	223	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
224	225	226	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
227	228	229	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
230	231	232	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
233	234	235	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
236	237	238	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
239	240	241	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000

(CONT.)

TABLE 16. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR FAST FISSION.

			235U	235U	238U	239PU	240PU	241PU
131	37	38	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
132	39	40	0.00035	0.00001	0.0006	0.0000	0.0000	0.0000
133	41	42	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
134	43	44	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
135	45	46	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
136	47	48	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
137	49	50	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
138	51	52	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
139	53	54	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
140	55	56	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
141	57	58	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
142	59	60	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
143	61	62	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
144	63	64	0.00000	0.00000	0.0000	0.0000	0.0000	0.0000
145	65	66	0.0000					

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CONT. 1

160. AUTOMATIC PRACTITIONAL NO: PENDENT VICTOR, A FAST EMISSION.

(CONT'D)

(CONT.)

TABLE 16. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR FAST FISSION.

MASS NO.	ATOMIC NO.	Fraction	233U	235U	238U	239PU	240PU	241PU
111	42	0.0000	0.0	0.0	0.0000	0.0	0.0	0.0000
	43	0.0079	0.0005	0.0004	0.0102	0.0001	0.0005	0.0013
	44	0.1755	0.0153	0.0654	0.2477	0.0303	0.0508	0.0899
	45	0.397	0.1415	0.4795	0.5879	0.167	0.4627	0.5395
	46	0.2144	0.0965	0.1204	0.1511	0.0291	0.4427	0.3466
	47	0.0018	0.0033	0.0331	0.0036	0.026	0.0442	0.0226
	48	0.3006	0.0074	0.0004	0.0000	0.014	0.0004	0.0001
	49	0.0	0.0000	0.0001	0.0	0.0000	0.0000	0.0000
112	42	0.0	0.0	0.0	0.0000	0.0	0.0	0.0
	43	0.0001	0.0000	0.0000	0.0020	0.0000	0.0001	0.0002
	44	0.0641	0.0076	0.0175	0.1100	0.0069	0.0133	0.0285
	45	0.5020	0.0814	0.2269	0.5621	0.1430	0.2782	0.3792
	46	0.4044	0.0904	0.6600	0.6094	0.6933	0.5775	0.5165
	47	0.1319	0.0269	0.0473	0.0171	0.1495	0.1295	0.0749
	48	0.0001	0.0174	0.0027	0.0001	0.0076	0.0027	0.0010
	49	0.0	0.0000	0.0000	0.0	0.0000	0.0000	0.0000
113	42	0.0001	0.0	0.0	0.0002	0.0	0.0000	0.0000
	43	0.0136	0.0004	0.0004	0.0098	0.0001	0.0023	0.0059
	44	0.2172	0.0176	0.0041	0.007	0.0524	0.1195	0.1914
	45	0.3574	0.5322	0.9131	0.4997	0.6047	0.5705	0.5955
	46	0.1067	0.0647	0.0821	0.0661	0.3037	0.2938	0.2006
	47	0.0014	0.0764	0.0006	0.0006	0.0383	0.0151	0.0045
	48	0.0000	0.0005	0.0005	0.0000	0.0001	0.0000	0.0000
	49	0.0	0.0000	0.0000	0.0	0.0000	0.0000	0.0000
114	42	0.0000	0.0	0.0	0.0000	0.0	0.0000	0.0000
	43	0.0036	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000
	44	0.1544	0.0080	0.0320	0.2428	0.0138	0.0370	0.0704
	45	0.4874	0.3303	0.5149	0.5892	0.5910	0.4168	0.2082
	46	0.4757	0.4575	0.5838	0.1549	0.4541	0.4865	0.3849
	47	0.1067	0.0647	0.0821	0.0661	0.1390	0.0600	0.0308
	48	0.0014	0.0764	0.0006	0.0006	0.0016	0.0006	0.0002
	49	0.0000	0.0005	0.0005	0.0000	0.0000	0.0000	0.0000
	50	0.0	0.0000	0.0000	0.0	0.0000	0.0000	0.0000
115	42	0.0000	0.0	0.0	0.0000	0.0	0.0000	0.0000
	43	0.0036	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	44	0.2172	0.0176	0.0041	0.007	0.0524	0.1195	0.1914
	45	0.3574	0.5322	0.9131	0.4997	0.6047	0.5705	0.5955
	46	0.1067	0.0647	0.0821	0.0661	0.3037	0.2938	0.2006
	47	0.0014	0.0764	0.0006	0.0006	0.0383	0.0151	0.0045
	48	0.0000	0.0005	0.0005	0.0000	0.0001	0.0000	0.0000
	49	0.0	0.0000	0.0000	0.0	0.0000	0.0000	0.0000
	50	0.0	0.0000	0.0000	0.0	0.0000	0.0000	0.0000
116	42	0.0000	0.0	0.0	0.0000	0.0	0.0000	0.0000
	43	0.0007	0.0000	0.0000	0.0000	0.0000	0.0003	0.0000
	44	0.0235	0.0004	0.0043	0.002	0.0000	0.0000	0.0001
	45	0.3513	0.0715	0.352	0.4908	0.1059	0.0078	0.0370
	46	0.3448	0.1719	0.3635	0.5676	0.1783	0.2191	0.3146
	47	0.0950	0.4470	0.1898	0.988	0.4753	0.8943	0.5591
	48	0.0342	0.3589	0.0156	0.0157	0.5345	0.1750	0.1665
	49	0.0001	0.0103	0.0007	0.0001	0.0095	0.0049	0.0019
	50	0.0000	0.0001	0.0000	0.0	0.0001	0.0000	0.0000
117	42	0.0000	0.0	0.0	0.0000	0.0	0.0000	0.0000
	43	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	44	0.0007	0.0	0.0	0.0000	0.0	0.0000	0.0000
	45	0.0436	0.0001	0.0834	0.0142	0.0000	0.0000	0.0001
	46	0.4941	0.1719	0.4765	0.5676	0.1783	0.2191	0.3146
	47	0.0950	0.4470	0.1898	0.988	0.4753	0.8943	0.5591
	48	0.0342	0.3589	0.0156	0.0157	0.5345	0.1750	0.1665
	49	0.0001	0.0103	0.0007	0.0001	0.0095	0.0049	0.0019
	50	0.0000	0.0001	0.0000	0.0	0.0001	0.0000	0.0000
118	42	0.0000	0.0	0.0	0.0000	0.0	0.0000	0.0000
	43	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	44	0.0007	0.0001	0.0111	0.4113	0.0010	0.0012	0.0033
	45	0.0235	0.0715	0.352	0.4908	0.1059	0.0846	0.1436
	46	0.3513	0.1719	0.4764	0.5676	0.1783	0.2191	0.3146
	47	0.0950	0.4470	0.1898	0.988	0.4753	0.8943	0.5591
	48	0.0342	0.3589	0.0156	0.0157	0.5345	0.1750	0.1665
	49	0.0001	0.0103	0.0007	0.0001	0.0095	0.0049	0.0019
	50	0.0000	0.0001	0.0000	0.0	0.0001	0.0000	0.0000
119	42	0.0000	0.0	0.0	0.0000	0.0	0.0000	0.0000
	43	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	44	0.0007	0.0001	0.0069	0.0185	0.0004	0.0002	0.0005
	45	0.0235	0.0715	0.0978	0.3201	0.0599	0.0308	0.0525
	46	0.3513	0.1719	0.4764	0.5676	0.1783	0.2191	0.3146
	47	0.0950	0.4470	0.1898	0.988	0.4753	0.8943	0.5591
	48	0.0342	0.3589	0.0156	0.0157	0.5345	0.1750	0.1665
	49	0.0001	0.0103	0.0007	0.0001	0.0095	0.0049	0.0019
	50	0.0000	0.0001	0.0000	0.0	0.0001	0.0000	0.0000
120	42	0.0000	0.0	0.0	0.0000	0.0	0.0000	0.0000
	43	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
	44	0.0003	0.0093	0.0393	0.1962	0.0185	0.0094	0.0218
	45	0.0126	0.1527	0.3162	0.5457	0.2249	0.2381	0.3414
	46	0.2034	0.7101	0.5907	0.1962	0.4669	0.5908	0.5430
	47	0.0193	0.1220	0.0521	0.0062	0.0874	0.1589	0.0926
	48	0.0351	0.3576	0.3059	0.0000	0.0040	0.0040	0.014
	49	0.0000	0.0000	0.0000	0.0	0.0000	0.0000	0.0000

(CONT.)

TABLE 16. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR FAST FISSION.

MASS NO.	ATOMIC NO.	Fraction	233U	235U	238U	239PU	240PU	241PU
117	43	0.0	0.0000	0.0000	0.0000	0.0	0.0	0.0
	44	0.0007	0.0000	0.0043	0.002	0.0000	0.0000	0.0001

CONT. 1

REV. A. J. H. INDEPENDENT VILLES FOR FAST FISSION.

TABLE II. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR FAST FISSION-
(CONT'D)

ZEITSCHRIFT FÜR PÄDAGOGISCHE WISSENSCHAFTEN

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TABLE I6. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR FAST FISSION.

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CONT. 1

TABLE II. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR FAST FISSION.

CONT.

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TABLE 16. ADJUSTED FRACTICAL INDEPENDENT YIELDS FOR FAST FISSION.										
MASS N <small>o</small> .	ATOMIC N <small>o</small> .	4321n	2331n	235U	236U	235PU	240PU	241PU		
149	55	0.0001	0.0	0.0000	0.0000	0.0	0.0000	0.0000	0.0000	0.0000
	56	0.0209	0.0001	0.0019	0.0012	0.0004	0.0014	0.0014	0.0049	0.0049
	57	0.1352	0.0157	0.0785	0.0477	0.0227	0.0927	0.1748	0.1748	0.1748
	58	0.3442	0.4144	0.6436	0.5324	0.5299	0.5335	0.5939	0.5939	0.5939
	59	0.0951	0.4797	0.1227	0.3577	0.2706	0.3417	0.2189	0.2189	0.2189
	60	0.2013	0.1408	0.0225	0.0245	0.0666	0.0218	0.0078	0.0078	0.0078
	61	0.0970	0.0014	0.0001	0.0001	0.0004	0.0001	0.0000	0.0000	0.0000
	62	0.0	0.0000	0.0	0.0000	0.0000	0.0000	0.0	0.0	0.0
150	55	0.0010	0.0	0.0000	0.0000	0.0	0.0000	0.0000	0.0000	0.0000
	56	0.0031	0.0000	0.0002	0.0000	0.0007	0.0027	0.0027	0.0561	0.0561
	57	0.1470	0.0021	0.0208	0.0231	0.0067	0.0027	0.0027	0.4767	0.4767
	58	0.3820	0.1718	0.4446	0.5916	0.2858	0.4771	0.4771	0.4269	0.4269
	59	0.0921	0.4470	0.4321	0.1657	0.4856	0.5400	0.0900	0.0398	0.0398
	60	0.2007	0.3689	0.1006	0.0042	0.2163	0.2381	0.1324	0.0003	0.0003
	61	0.0960	0.0103	0.0019	0.0010	0.0038	0.0014	0.0000	0.0000	0.0000
	62	0.0	0.0001	0.0000	0.0	0.0000	0.0000	0.0	0.0	0.0
151	55	0.0	0.0	0.0000	0.0013	0.0000	0.0000	0.0000	0.0000	0.0000
	56	0.0064	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0127	0.0127
	57	0.0637	0.0002	0.0039	0.0073	0.0009	0.0040	0.0040	0.2728	0.2728
	58	0.4464	0.0461	0.2155	0.5361	0.0994	0.1589	0.1589	0.5791	0.5791
	59	0.4564	0.3031	0.4423	0.3523	0.4190	0.3908	0.3908	0.1324	0.1324
	60	0.0649	0.0002	0.0796	0.0235	0.0596	0.0281	0.0281	0.0028	0.0028
	61	0.0075	0.0056	0.0000	0.0001	0.0211	0.0094	0.0094	0.0000	0.0000
	62	0.0000	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0	0.0
152	55	0.0	0.0	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
	56	0.0003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0019	0.0019
	57	0.0074	0.0085	0.0654	0.3469	0.0228	0.0491	0.1066	0.1066	0.1066
	58	0.3890	0.1452	0.1795	0.5357	0.2460	0.4578	0.5559	0.5559	0.5559
	59	0.1674	0.7111	0.3204	0.6551	0.4478	0.714	0.714	0.0458	0.0458
	60	0.0003	0.0178	0.0231	0.0012	0.0764	0.0177	0.0177	0.0004	0.0004
	61	0.0000	0.0004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	62	0.0	0.0000	0.0000	0.0	0.0	0.0	0.0	0.0	0.0

THE INDEPENDENT VICTIMS FOR FAST FISSION.

TABLE I6. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR FAST FISSION.

ATOMIC NO.	ATOMIC NO.	24CPU			24IPU		
		239PU	238U	235U	233U	232Th	231Pa
157	58	0.00001 0.00209	0.0000 0.0174	0.0000 0.1174	0.0004 0.4475	0.0000 0.0430	0.0000 0.0848
	59	0.00001 0.00209	0.0000 0.0253	0.0000 0.0253	0.0004 0.4494	0.0002 0.4575	0.0012 0.5327
	60	0.00001 0.00209	0.0000 0.0209	0.0000 0.4139	0.0004 0.0490	0.0002 0.3912	0.0012 0.3579
	61	0.00001 0.00209	0.0000 0.0191	0.0000 0.0864	0.0005 0.0171	0.0005 0.0078	0.0002 0.0245
	62	0.00001 0.00209	0.0000 0.0015	0.0000 0.0029	0.0001 0.0061	0.0000 0.0000	0.0000 0.0000
	63	0.00001 0.00209	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
	64	0.00001 0.00209	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
	65	0.00001 0.00209	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
	66	0.00001 0.00209	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000	0.0000 0.0000
158	59	0.00000 0.00040	0.0000 0.0029	0.0001 0.0864	0.0000 0.2837	0.0000 0.5864	0.0001 0.1557
	60	0.00000 0.00040	0.0000 0.0029	0.0001 0.0864	0.0000 0.2837	0.0000 0.5864	0.0001 0.1557
	61	0.00000 0.00040	0.0000 0.0029	0.0001 0.0864	0.0000 0.2837	0.0000 0.5864	0.0001 0.1557
	62	0.00000 0.00040	0.0000 0.0029	0.0001 0.0864	0.0000 0.2837	0.0000 0.5864	0.0001 0.1557
	63	0.00000 0.00040	0.0000 0.0029	0.0001 0.0864	0.0000 0.2837	0.0000 0.5864	0.0001 0.1557
	64	0.00000 0.00040	0.0000 0.0029	0.0001 0.0864	0.0000 0.2837	0.0000 0.5864	0.0001 0.1557
	65	0.00000 0.00040	0.0000 0.0029	0.0001 0.0864	0.0000 0.2837	0.0000 0.5864	0.0001 0.1557
	66	0.00000 0.00040	0.0000 0.0029	0.0001 0.0864	0.0000 0.2837	0.0000 0.5864	0.0001 0.1557
159	59	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	60	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	61	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	62	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	63	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	64	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	65	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	66	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
160	59	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	60	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	61	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	62	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	63	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	64	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	65	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012
	66	0.00000 0.00040	0.0000 0.0004	0.0000 0.0054	0.0000 0.1054	0.0000 0.2110	0.0000 0.0012

(CONT.)

TABLE 17. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR FAST FISSION.

			232Th	233U	235U	238U	239Pu	240Pu	241Pu
164	68	69	0.0	0.0	0.0	0.0	0.0	0.0	0.0
69	70	71	0.001	0.0054	0.0000	0.0000	0.0000	0.0002	0.0002
70	71	72	0.0116	0.1633	0.0067	0.0117	0.0132	0.0132	0.0132
71	72	73	0.0458	0.5951	0.1830	0.4730	0.4679	0.4679	0.4679
72	73	74	0.4762	0.2097	0.4770	0.5334	0.4996	0.4996	0.4996
73	74	75	0.1863	0.0071	0.783	0.14C1	0.0661	0.0661	0.0661
74	75	76	0.4967	0.1610	0.0000	0.0091	0.0031	0.0031	0.0031
75	76	77	0.6233	0.0022	0.0000	0.0000	0.0000	0.0000	0.0000
76	77	78	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
77	78	79	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
78	79	80	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
79	80	81	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
80	81	82	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
81	82	83	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
82	83	84	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
83	84	85	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
84	85	86	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
85	86	87	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
86	87	88	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
87	88	89	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
88	89	90	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
89	90	91	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
90	91	92	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
91	92	93	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
92	93	94	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
93	94	95	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
94	95	96	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
95	96	97	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
96	97	98	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
97	98	99	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
98	99	100	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
99	100	101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
100	101	102	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
101	102	103	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
102	103	104	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
103	104	105	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
104	105	106	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
105	106	107	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
106	107	108	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
107	108	109	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
108	109	110	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
109	110	111	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
110	111	112	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
111	112	113	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
112	113	114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
113	114	115	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
114	115	116	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
115	116	117	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
116	117	118	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
117	118	119	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
118	119	120	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
119	120	121	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
120	121	122	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
121	122	123	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
122	123	124	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
123	124	125	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
124	125	126	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
125	126	127	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
126	127	128	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
127	128	129	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
128	129	130	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
129	130	131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
130	131	132	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
131	132	133	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
132	133	134	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
133	134	135	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
134	135	136	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
135	136	137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
136	137	138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
137	138	139	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
138	139	140	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
139	140	141	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
140	141	142	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
141	142	143	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
142	143	144	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
143	144	145	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
144	145	146	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
145	146	147	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
146	147	148	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
147	148	149	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
148	149	150	0.0000	0.0000	0.0000				

TABLE 17. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION. (CONT.)

MASS NO.	ATOMIC NO.	232TH	233U	235U	238U	239PU	240PU	241PU
77	28	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.0001 0.0045 0.1675 C.5954 C.2295 C.0086 C.0000	C.0001 C.0145 C.2501 0.5760 C.1235 C.0024 C.0000	0.0000 0.0113 0.2584 0.5025 0.1421 0.0352 0.0000	C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C
78	29	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.0005 0.0510 0.4646 0.4446 0.4444 0.0004 C.0000	C.0021 C.1081 0.5532 0.3229 0.0202 0.0001 0.0000	0.0015 0.0959 0.5460 0.3335 0.0206 0.0011 0.0000	C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C
79	27	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	0.0017 0.0216 0.1210 0.2343 0.3418 0.1635 0.0040 0.0002	0.0001 0.0228 0.3475 0.3033 0.5370 0.1734 0.0013 0.0002	C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C
80	29	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	0.0013 0.0013 0.0013 0.0013 0.0013 0.0013 0.0013 0.0013 0.0013	0.0052 0.1595 0.5890 0.2358 0.0013 0.0002 0.0002 0.0002 0.0002	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C
81	29	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	0.0001 0.0210 0.0565 0.4797 0.4255 0.0400 0.0003 0.0000	0.0005 0.0494 0.4576 0.4446 0.0452 0.0004 0.0000 0.0000	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C
82	30	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	0.0007 0.1083 0.6612 0.2317 0.0036 0.0000 0.0003 0.0000	0.0123 0.2694 0.5847 0.1372 0.0030 0.0006 0.0000 0.0000	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C
83	30	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	0.0003 0.0414 0.4943 0.4144 0.0546 0.0005 0.0000 0.0000	0.0001 0.0481 0.6673 0.2884 0.0026 0.0000 0.0000 0.0000	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C
84	30	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	0.0032 0.0735 0.2200 0.3742 0.5970 0.4333 0.1757 0.0068	0.0001 0.0238 0.3529 0.5334 0.1152 0.0862 0.0013 0.0000	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C

TABLE 17. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION. (CONT.)

MASS NO.	ATOMIC NO.	232TH	233U	235U	238U	239PU	240PU	241PU
81	30	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	0.0001 0.0210 0.0565 0.4797 0.4255 0.0400 0.0003 0.0000	0.0005 0.0494 0.4576 0.4446 0.0452 0.0004 0.0000 0.0000	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C
82	31	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	0.0007 0.1083 0.6612 0.2317 0.0036 0.0000 0.0003 0.0000	0.0123 0.2694 0.5847 0.1372 0.0030 0.0006 0.0000 0.0000	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C
83	30	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	0.0003 0.0414 0.4943 0.4144 0.0546 0.0005 0.0000 0.0000	0.0001 0.0481 0.6673 0.2884 0.0026 0.0000 0.0000 0.0000	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C
84	31	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	0.0032 0.0735 0.2200 0.3742 0.5970 0.4333 0.1757 0.0068	0.0001 0.0238 0.3529 0.5334 0.1152 0.0862 0.0013 0.0000	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C	C.C C.C C.C C.C C.C C.C C.C C.C C.C

(CONT'D.)

TABLE 17. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION.

MASS NO.	ATOMIC NO.	232Th	233U	235U	238U	239Pu	240Pu	241Pu
85	31	C.C	C.C	0.0000	0.0000	C.C	C.C	C.C
	32	C.C	C.C	0.0005	0.0042	0.0039	C.C	C.C
	33	C.C	C.3730	0.1637	0.1556	C.C	C.C	C.C
	34	C.C	C.5150	0.5951	0.5878	C.C	C.C	C.C
	35	C.C	C.3565	0.2345	0.2406	C.C	C.C	C.C
	36	C.C	C.0293	0.0090	0.0096	C.C	C.C	C.C
	37	C.C	C.0002	0.0000	0.0000	C.C	C.C	C.C
	38	C.C	C.0000	C.0	C.0	C.C	C.C	C.C
86	31	C.C	C.C	C.CCC	C.C	C.C	C.C	C.C
	32	C.C	C.0001	0.0027	0.0004	C.C	C.C	C.C
	33	C.C	C.0158	0.0002	0.0445	C.C	C.C	C.C
	34	C.C	C.3003	0.4203	0.4426	C.C	C.C	C.C
	35	C.C	C.5703	0.4203	0.4595	C.C	C.C	C.C
	36	C.C	C.1165	0.802	0.551	C.C	C.C	C.C
	37	C.C	C.0022	0.0027	0.0005	C.C	C.C	C.C
	38	C.C	C.0000	0.0000	0.0000	C.C	C.C	C.C
87	31	C.C	C.C	C.CCC	C.C	C.C	C.C	C.C
	32	C.C	C.0003	0.0007	0.0000	C.C	C.C	C.C
	33	C.C	C.0021	0.0414	0.0086	C.C	C.C	C.C
	34	C.C	C.1136	0.3946	0.2291	C.C	C.C	C.C
	35	C.C	C.5677	0.4770	0.5905	C.C	C.C	C.C
	36	C.C	C.3056	0.849	0.1650	C.C	C.C	C.C
	37	C.C	C.0165	C.0020	0.0044	C.C	C.C	C.C
	38	C.C	C.0001	0.0000	0.0000	C.C	C.C	C.C
88	30	C.C	C.C	C.CCC	C.C	C.C	C.C	C.C
	31	C.C	C.C	C.0005	C.C	C.C	C.C	C.C
	32	C.C	C.C	C.0002	C.0000	C.C	C.C	C.C
	33	C.C	C.C	C.0001	C.0010	C.C	C.C	C.C
	34	C.C	C.C	C.0246	C.1790	C.0778	C.C	C.C
	35	C.C	C.C	C.3594	C.3124	C.5204	C.C	C.C
	36	C.C	C.C	C.5350	C.2832	C.3711	C.C	C.C
	37	C.C	C.C	C.0851	C.1332	C.0271	C.C	C.C
	38	C.C	C.C	C.0012	C.0325	C.0022	C.C	C.C
	39	C.C	C.C	C.0000	C.0041	C.0000	C.C	C.C
	40	C.C	C.C	C.0003	C.C	C.C	C.C	C.C
	41	C.C	C.C	C.0000	C.C	C.C	C.C	C.C

TABLE 17. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION.

MASS NO.	ATOMIC NO.	232Th	233U	235U	238U	239Pu	240Pu	241Pu
85	32	C.C	C.C	C.CC	C.C	C.C	C.C	C.C
	33	C.C	C.C	C.0000	C.0023	C.0180	C.C	C.C
	34	C.C	C.C	C.0812	C.2646	C.3194	C.C	C.C
	35	C.C	C.C	C.7879	C.6753	C.5567	C.C	C.C
	36	C.C	C.C	C.1362	C.0444	C.1057	C.C	C.C
	37	C.C	C.C	C.0002	C.0000	C.0018	C.C	C.C
	38	C.C	C.C	C.C	C.0000	C.C	C.C	C.C
	39	C.C	C.C	C.C	C.0003	C.C	C.C	C.C
	40	C.C	C.C	C.C	C.0000	C.C	C.C	C.C
86	32	C.C	C.C	C.CCC	C.CCC	C.C	C.C	C.C
	33	C.C	C.C	C.0005	C.0056	C.0330	C.C	C.C
	34	C.C	C.C	C.0927	C.2225	C.1371	C.C	C.C
	35	C.C	C.C	C.4695	C.6213	C.5800	C.C	C.C
	36	C.C	C.C	C.4394	C.1487	C.2695	C.C	C.C
	37	C.C	C.C	C.0429	C.0024	C.0120	C.C	C.C
	38	C.C	C.C	C.C	C.0000	C.C	C.C	C.C
	39	C.C	C.C	C.C	C.0004	C.C	C.C	C.C
	40	C.C	C.C	C.C	C.0000	C.C	C.C	C.C
87	32	C.C	C.C	C.CCC	C.CCC	C.C	C.C	C.C
	33	C.C	C.C	C.0024	C.0010	C.003	C.C	C.C
	34	C.C	C.C	C.0493	C.0371	C.0401	C.C	C.C
	35	C.C	C.C	C.2795	C.2866	C.4273	C.C	C.C
	36	C.C	C.C	C.4460	C.4844	C.4740	C.C	C.C
	37	C.C	C.C	C.2016	C.1824	C.0554	C.C	C.C
	38	C.C	C.C	C.0254	C.0148	C.0006	C.C	C.C
	39	C.C	C.C	C.0009	C.0172	C.0000	C.C	C.C
	40	C.C	C.C	C.0000	C.0000	C.C	C.C	C.C
	41	C.C	C.C	C.0000	C.0000	C.C	C.C	C.C
88	34	C.C	C.C	C.CCC	C.CCC	C.C	C.C	C.C
	35	C.C	C.C	C.0057	C.0080	C.0075	C.C	C.C
	36	C.C	C.C	C.1223	C.2397	C.2150	C.C	C.C
	37	C.C	C.C	C.4739	C.6192	C.5927	C.C	C.C
	38	C.C	C.C	C.3526	C.1221	C.1712	C.C	C.C
	39	C.C	C.C	C.4497	C.6616	C.0030	C.C	C.C
	40	C.C	C.C	C.0312	C.0000	C.0000	C.C	C.C
	41	C.C	C.C	C.0000	C.0000	C.C	C.C	C.C
89	34	C.C	C.C	C.CCC	C.CCC	C.C	C.C	C.C
	35	C.C	C.C	C.0057	C.0080	C.0075	C.C	C.C
	36	C.C	C.C	C.1223	C.2397	C.2150	C.C	C.C
	37	C.C	C.C	C.4739	C.6192	C.5927	C.C	C.C
	38	C.C	C.C	C.3526	C.1221	C.1712	C.C	C.C
	39	C.C	C.C	C.4497	C.6616	C.0030	C.C	C.C
	40	C.C	C.C	C.0312	C.0000	C.0000	C.C	C.C
	41	C.C	C.C	C.0000	C.0000	C.C	C.C	C.C

TABLE I7. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION.
(CONT.)

MASS NO.	ATOMIC NO.	232TH	233U	235U	238U	239PU	240PU	241PU
51	34	C.C	C.C	C.C	0.CCCC	C.C	C.C	C.C
	35	C.C	0.0001	0.0009	C.0010	C.C	C.C	C.C
36	C.C	C.C	C.0237	C.0053	0.0776	C.C	C.C	C.C
37	C.C	C.C	0.3540	C.5684	0.5204	C.C	C.C	C.C
38	C.C	C.C	0.5387	C.3358	0.3711	C.C	C.C	C.C
39	C.C	C.C	0.0877	C.0162	0.0271	C.C	C.C	C.C
40	C.C	C.C	0.0013	C.0000	0.0002	C.C	C.C	C.C
41	C.C	C.C	0.0003	C.0	0.0000	C.C	C.C	C.C
54	34	C.C	C.C	C.0000	C.0000	C.C	C.C	C.C
	35	C.C	C.0000	C.0010	C.0001	C.C	C.C	C.C
36	C.C	C.0038	C.0314	0.0187	C.C	C.C	C.C	C.C
37	C.C	0.1557	0.2437	0.3207	C.C	C.C	C.C	C.C
38	C.C	0.5921	0.4710	0.5336	C.C	C.C	C.C	C.C
39	C.C	0.2440	0.2306	0.1028	C.C	C.C	C.C	C.C
40	C.C	0.0098	0.0281	0.0017	C.C	C.C	C.C	C.C
41	C.C	C.C	0.0000	0.0000	C.C	C.C	C.C	C.C
42	C.C	C.C	0.0000	C.0	0.0000	C.C	C.C	C.C
55	35	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C
	36	C.C	0.0010	0.0032	C.0032	C.C	C.C	C.C
37	C.C	C.0739	C.1699	0.1407	C.C	C.C	C.C	C.C
38	C.C	0.5062	C.6315	C.5818	C.C	C.C	C.C	C.C
39	C.C	0.3910	C.1976	0.2604	C.C	C.C	C.C	C.C
40	C.C	C.0331	C.0044	0.0115	C.C	C.C	C.C	C.C
41	C.C	C.C	0.0003	C.0000	0.0000	C.C	C.C	C.C
42	C.C	C.C	0.0000	C.0	0.0	C.C	C.C	C.C
56	35	C.0	C.0000	C.0000	C.0000	C.C	C.C	C.C
	36	C.C	C.0009	C.0036	C.0003	C.C	C.C	C.C
37	C.C	0.0338	0.0192	0.0415	C.C	C.C	C.C	C.C
38	C.C	0.2667	0.3840	0.4324	C.C	C.C	C.C	C.C
39	C.C	0.4830	C.4254	0.4692	C.C	C.C	C.C	C.C
40	C.C	0.2002	0.1082	0.0536	C.C	C.C	C.C	C.C
41	C.C	0.0186	0.0061	0.0005	C.C	C.C	C.C	C.C
42	C.C	0.0004	0.0001	C.0000	C.C	C.C	C.C	C.C
43	C.C	C.0000	C.C	0.0	C.C	C.C	C.C	C.C

TABLE I7. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION.
(CONT.)

MASS NO.	ATOMIC NO.	232TH	233U	235U	238U	239PU	240PU	241PU
57	36	C.C	C.C	C.0003	C.0000	C.C	C.C	C.C
	37	C.C	0.0003	0.0121	0.0083	C.C	C.C	C.C
38	C.C	0.0620	0.2777	0.2244	C.C	C.C	C.C	C.C
39	C.C	0.5910	0.5878	0.5913	C.C	C.C	C.C	C.C
40	C.C	0.3416	0.1266	0.1690	C.C	C.C	C.C	C.C
41	C.C	0.0106	0.0023	0.0046	C.C	C.C	C.C	C.C
42	C.C	C.C	0.0000	C.0000	C.C	C.C	C.C	C.C
58	36	C.C	C.0	0.0	C.0000	C.C	C.C	C.C
	37	C.C	C.0001	C.0010	C.0015	C.C	C.C	C.C
38	C.C	C.0217	C.0154	C.0959	C.C	C.C	C.C	C.C
39	C.C	C.3543	C.1158	C.5460	C.C	C.C	C.C	C.C
40	C.C	C.3367	C.3819	C.3339	C.C	C.C	C.C	C.C
41	C.C	C.0677	C.0267	C.0206	C.C	C.C	C.C	C.C
42	C.C	C.C	C.0000	C.0000	C.C	C.C	C.C	C.C
59	36	C.C	C.C	C.0	C.0000	C.C	C.C	C.C
	37	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C
38	C.C	C.0202	C.0418	C.0001	C.C	C.C	C.C	C.C
39	C.C	C.1133	C.0238	C.0238	C.C	C.C	C.C	C.C
40	C.C	C.1635	C.2815	C.2929	C.C	C.C	C.C	C.C
41	C.C	C.3357	C.5334	C.0000	C.C	C.C	C.C	C.C
42	C.C	C.C	C.0000	C.0000	C.C	C.C	C.C	C.C
60	34	C.C	C.C	C.0	C.0000	C.C	C.C	C.C
	35	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C
36	C.C	C.0564	C.0049	C.0049	C.C	C.C	C.C	C.C
37	C.C	C.4791	C.1920	C.1756	C.C	C.C	C.C	C.C
38	C.C	C.4291	C.2492	C.2169	C.C	C.C	C.C	C.C
39	C.C	C.0103	C.0077	C.0077	C.C	C.C	C.C	C.C
40	C.C	C.0003	C.0000	C.0000	C.C	C.C	C.C	C.C
41	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C	C.C
42	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C	C.C
43	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C	C.C
44	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C	C.C
45	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C	C.C
46	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C	C.C
47	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C	C.C
48	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C	C.C
49	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C	C.C
50	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C	C.C

(CONT.)

TABLE 17. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION.

MASS NO.	ATOMIC NO.	232TH	233U	235U	239PU	240PU	241PU
101	47	C.C	C.CC1	C.C	C.C	C.C	C.C
	35	C.C	0.00002	0.0007	C.C	C.C	C.C
	39	C.C	0.0139	0.0511	C.0624	C.C	C.C
	40	C.C	0.2645	0.4651	C.4206	C.C	C.C
	41	C.C	0.5177	0.4450	C.4085	C.C	C.C
	42	C.C	0.1267	0.0445	0.0352	C.C	0.0
	43	C.C	0.0026	0.0004	0.0003	C.C	C.C
	44	C.C	0.0000	0.0000	0.0000	C.C	C.C
102	36	C.C	C.CCC0	C.0000	C.CCC5	C.C	C.C
	39	C.C	0.0023	0.0117	0.0494	C.C	C.C
	40	C.C	0.1200	0.2643	0.4576	C.C	C.C
	41	C.C	0.5729	0.5865	0.4446	C.C	0.0
	42	C.C	0.2950	0.1408	0.0452	C.C	C.C
	43	C.C	0.0151	0.0022	0.0004	C.C	C.C
	44	C.C	0.0001	0.0000	0.0000	C.C	0.0
103	38	C.C	C.C	C.C	C.CCCC0	C.C	C.C
	39	C.C	C.0003	C.0	C.0029	C.C	C.C
	40	C.C	0.0359	0.0214	0.1336	C.C	C.C
	41	C.C	0.4133	0.3977	0.4375	C.C	C.C
	42	C.C	0.4931	0.7570	0.5781	C.C	C.C
	43	C.C	0.0622	0.2275	0.2705	C.C	C.C
	44	C.C	0.0007	0.0002	0.0125	C.C	C.C
	45	C.C	0.0000	0.0000	0.0005	C.C	C.C
104	39	C.C	C.CCC0	C.CCC2	C.CCC4	C.C	C.C
	40	C.C	0.0075	0.0211	C.0471	C.C	C.C
	41	C.C	0.2153	0.3977	0.4375	C.C	C.C
	42	C.C	0.5976	0.5071	0.4644	C.C	C.C
	43	C.C	0.1799	0.0686	0.0518	C.C	C.C
	44	C.C	0.0007	0.0002	0.0005	C.C	C.C
	45	C.C	0.0000	0.0000	0.0000	C.C	C.C
105	39	C.C	C.C	C.CCC0	C.CCC0	C.C	C.C
	40	C.C	C.0008	0.0052	C.CC15	C.C	C.C
	41	C.C	0.0666	0.1801	C.2150	C.C	C.C
	42	C.C	0.5065	0.5982	C.5527	C.C	C.C
	43	C.C	0.3973	0.2156	C.1772	C.C	C.C
	44	C.C	0.0321	0.0075	C.CC50	C.C	C.C
	45	C.C	0.0002	0.0000	C.0CCC	C.C	C.C
	46	C.C	0.0000	0.0000	C.0	C.C	C.C
	47	C.C	0.0000	0.0000	0.0000	C.C	C.C

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(CONT.)

TABLE 17. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION.

MASS NO.	ATOMIC NO.	232TH	233U	235U	239PU	240PU	241PU
106	38	C.C	C.C	C.0	0.0	C.C	C.C
	39	C.C	0.0001	0.0005	0.0008	C.C	C.C
	40	C.C	0.0139	0.0111	0.0687	C.C	C.C
	41	C.C	0.2845	0.411	0.5038	C.C	C.C
	42	C.C	0.5777	0.4450	0.3926	C.C	C.C
	43	C.C	0.1267	0.4445	0.0315	C.C	C.C
	44	C.C	0.0026	0.0004	0.0002	C.C	C.C
	45	C.C	0.0000	0.0000	0.0000	C.C	C.C
	46	C.C	0.0	0.0	0.0	C.C	C.C
	47	C.C	0.0000	0.0000	0.0000	C.C	C.C
107	40	C.C	C.CCC0	C.CCC0	C.CCC1	C.C	C.C
	41	C.C	0.0016	C.0094	C.0140	C.C	C.C
	42	C.C	0.986	0.2294	C.2839	C.C	C.C
	43	C.C	0.5926	0.5940	C.5725	C.C	C.C
	44	C.C	0.3324	C.1597	C.1247	C.C	C.C
	45	C.C	0.0262	0.0040	0.0025	C.C	C.C
	46	C.C	0.0001	0.0000	C.0CCC0	C.C	C.C
	47	C.C	0.0000	0.0000	C.0	C.C	C.C
108	41	C.C	C.CCC0	C.CCC2	C.0004	C.C	C.C
	42	C.C	0.0072	0.0321	0.0461	C.C	C.C
	43	C.C	0.2167	0.3977	0.4476	C.C	C.C
	44	C.C	0.5900	C.5071	C.4546	C.C	C.C
	45	C.C	0.1841	C.0686	0.0184	C.C	C.C
	46	C.C	0.0054	0.0008	0.0000	C.C	C.C
	47	C.C	0.0000	0.0000	C.0	C.C	C.C
109	41	C.C	C.0	C.0CCC0	C.0CCC0	C.C	C.C
	42	C.C	0.0006	C.0042	0.0069	C.C	C.C
	43	C.C	0.0564	C.1637	C.2059	C.C	C.C
	44	C.C	0.4791	C.5951	C.9926	C.C	C.C
	45	C.C	0.4291	C.2345	C.1857	C.C	C.C
	46	C.C	0.0400	0.0050	0.0055	C.C	C.C
	47	C.C	0.0003	0.0003	0.0003	C.C	C.C

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CCN-1
1970 AUGUST 14, 1970
U.S. GOVERNMENT PRINTING OFFICE: 1970 7-1447-1
INDEPENDENT VILLAGE FOR 14MEV FISSION.

TABLE I. ADJUSTED FRACTURAL INDEPENDENT YIELDS FOR 14 MEV FISSION. ((CONT'D))

ATOMIC NO.	MASS NO.	2321H	233U	235U	238U	239Pu	240Pu	241Pu
115	43	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	46	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	47	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	49	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116	43	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	46	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	47	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	49	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117	43	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	46	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	47	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	49	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118	43	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	44	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	46	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	47	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	49	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	50	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(CONT.)

TABLE 16. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION.

MASS NO.	ATOMIC NO.	232Th	230U	235U	238U	239PU	240PU	241PU
115	44	C-C	C-CCCC	C-CCCC	C-CCCC	C-C	C-C	C-C
	45	C-C	C-CCCC1	C-C011	C-0025	C-C	C-C	C-C
	46	C-C	C-0228	C-0802	C-1233	C-C	C-C	C-C
	47	C-C	C-3486	C-5278	C-5716	C-C	C-C	C-C
	48	C-C	C-5423	C-3707	C-2855	C-C	C-C	C-C
	49	C-C	C-0904	C-0266	C-0142	C-C	C-C	C-C
	50	C-C	C-0014	C-0002	C-0001	C-C	C-C	C-C
	51	C-C	C-CCCC0	C-0000	C-C	C-C	C-C	C-C
120C	45	C-C	C-CCCC	C-0002	C-0006	C-C	C-C	C-C
	46	C-C	C-0079	C-0334	C-0584	C-C	C-C	C-C
	47	C-C	C-0220	C-4031	C-4815	C-C	C-C	C-C
	48	C-C	C-5970	C-5027	C-4190	C-C	C-C	C-C
	49	C-C	C-1757	C-0665	C-0378	C-C	C-C	C-C
	50	C-C	C-0049	C-0008	C-0003	C-C	C-C	C-C
	51	C-C	C-0000	C-0000	C-C	C-C	C-C	C-C
121	44	C-C	C-C	C-CCCC	C-C	C-C	C-C	C-C
	45	C-C	C-0000	C-0015	C-C002	C-C	C-C	C-C
	46	C-C	C-0021	C-0422	C-0257	C-C	C-C	C-C
	47	C-C	C-0136	C-2803	C-3636	C-C	C-C	C-C
	48	C-C	C-5617	C-4657	C-5258	C-C	C-C	C-C
	49	C-C	C-3056	C-1960	C-0812	C-C	C-C	C-C
	50	C-C	C-0165	C-0204	C-0011	C-C	C-C	C-C
	51	C-C	C-0001	C-0005	C-0000	C-C	C-C	C-C
	52	C-C	C-C	C-CCCC0	C-C	C-C	C-C	C-C
122	45	C-C	C-C	C-CCCC	C-C	C-C	C-C	C-C
	46	C-C	C-0005	C-0037	C-0090	C-C	C-C	C-C
	47	C-C	C-0546	C-1520	C-2339	C-C	C-C	C-C
	48	C-C	C-4744	C-5914	C-5854	C-C	C-C	C-C
	49	C-C	C-4343	C-2492	C-1611	C-C	C-C	C-C
	50	C-C	C-0614	C-0103	C-0041	C-C	C-C	C-C
	51	C-C	C-0003	C-0000	C-0000	C-C	C-C	C-C
	52	C-C	C-C	C-0000	C-C	C-C	C-C	C-C
123	46	C-C	C-C	C-CCCC	C-C	C-C	C-C	C-C
	47	C-C	C-0005	C-0037	C-0090	C-C	C-C	C-C
	48	C-C	C-0546	C-1520	C-2339	C-C	C-C	C-C
	49	C-C	C-4744	C-5914	C-5854	C-C	C-C	C-C
	50	C-C	C-4343	C-2492	C-1611	C-C	C-C	C-C
	51	C-C	C-0614	C-0103	C-0041	C-C	C-C	C-C
	52	C-C	C-0003	C-0000	C-0000	C-C	C-C	C-C
124	45	C-C	C-C	C-CCCC	C-C	C-C	C-C	C-C
	46	C-C	C-C	C-0005	C-0054	C-C012	C-C	C-C
	47	C-C	C-0001	C-C010	C-0035	C-C	C-C	C-C
	48	C-C	C-0256	C-0778	C-1480	C-C	C-C	C-C
	49	C-C	C-3649	C-5238	C-5855	C-C	C-C	C-C
	50	C-C	C-5212	C-3761	C-2504	C-C	C-C	C-C
	51	C-C	C-0826	C-0277	C-0105	C-C	C-C	C-C
	52	C-C	C-0011	C-0002	C-0000	C-C	C-C	C-C
125	46	C-C	C-C	C-CCCC1	C-CCCC	C-C	C-C	C-C
	47	C-C	C-C	C-0005	C-0054	C-C012	C-C	C-C
	48	C-C	C-0098	C-0904	C-0827	C-C	C-C	C-C
	49	C-C	C-2440	C-3716	C-3281	C-C	C-C	C-C
	50	C-C	C-5210	C-4093	C-3604	C-C	C-C	C-C
	51	C-C	C-1557	C-1154	C-0251	C-C	C-C	C-C
	52	C-C	C-0000	C-0001	C-0000	C-C	C-C	C-C
126	45	C-C	C-C	C-CCCC1	C-CCCC	C-C	C-C	C-C
	46	C-C	C-C	C-0030	C-0030	C-C011	C-C	C-C
	47	C-C	C-C	C-0008	C-0450	C-0159	C-C	C-C
	48	C-C	C-1407	C-2953	C-4271	C-C	C-C	C-C
	49	C-C	C-5859	C-5735	C-4740	C-C	C-C	C-C
	50	C-C	C-2640	C-1202	C-0554	C-C	C-C	C-C
	51	C-C	C-0117	C-0023	C-0006	C-C	C-C	C-C
	52	C-C	C-0000	C-0000	C-0000	C-C	C-C	C-C

(CONT.)

TABLE 17. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION.

MASS NO.	ATOMIC NO.	232Th	233U	235U	238U	239PU	240PU	241PU
123	45	C-C	C-C	C-CCCC	C-C	C-C	C-C	C-C
	46	C-C	C-C	C-0001	C-C010	C-0035	C-C	C-C
	47	C-C	C-C	C-0256	C-0778	C-1480	C-C	C-C
	48	C-C	C-C	C-3649	C-5238	C-5855	C-C	C-C
	49	C-C	C-C	C-5212	C-3761	C-2504	C-C	C-C
	50	C-C	C-C	C-0826	C-0277	C-0105	C-C	C-C
	51	C-C	C-C	C-0011	C-0002	C-0000	C-C	C-C
	52	C-C	C-C	C-0000	C-0001	C-0000	C-C	C-C
124	46	C-C	C-C	C-CCCC1	C-CCCC	C-C	C-C	C-C
	47	C-C	C-C	C-0005	C-0054	C-C012	C-C	C-C
	48	C-C	C-C	C-0098	C-0904	C-0827	C-C	C-C
	49	C-C	C-C	C-2440	C-3716	C-3281	C-C	C-C
	50	C-C	C-C	C-5210	C-4093	C-3604	C-C	C-C
	51	C-C	C-C	C-1557	C-1154	C-0251	C-C	C-C
	52	C-C	C-C	C-0000	C-0001	C-0000	C-C	C-C
125	45	C-C	C-C	C-CCCC1	C-CCCC	C-C	C-C	C-C
	46	C-C	C-C	C-0030	C-0030	C-C011	C-C	C-C
	47	C-C	C-C	C-0008	C-0450	C-0159	C-C	C-C
	48	C-C	C-C	C-1407	C-2953	C-4271	C-C	C-C
	49	C-C	C-C	C-5859	C-5735	C-4740	C-C	C-C
	50	C-C	C-C	C-2640	C-1202	C-0554	C-C	C-C
	51	C-C	C-C	C-0117	C-0023	C-0006	C-C	C-C
	52	C-C	C-C	C-0000	C-0000	C-0000	C-C	C-C
126	45	C-C	C-C	C-CCCC1	C-CCCC	C-C	C-C	C-C
	46	C-C	C-C	C-0030	C-0030	C-C011	C-C	C-C
	47	C-C	C-C	C-0008	C-0450	C-0159	C-C	C-C
	48	C-C	C-C	C-1407	C-2953	C-4271	C-C	C-C
	49	C-C	C-C	C-5859	C-5735	C-4740	C-C	C-C
	50	C-C	C-C	C-2640	C-1202	C-0554	C-C	C-C
	51	C-C	C-C	C-0117	C-0023	C-0006	C-C	C-C
	52	C-C	C-C	C-0000	C-0000	C-0000	C-C	C-C

TABLE 17. ADJUSTED FRACTIONAL INEFFECTIVE YIELDS FOR 14MEV FISSION.
(CONT.)

			2321H	233U	238U	239PU	240PU	241PU
127	47	48	0.0001 0.0075 0.0236 0.1643 0.3342 0.3926 0.4632 0.5314 0.6000	0.0001 0.0075 0.0133 0.0463 0.1346 0.0549 0.0134 0.0000	0.0001 0.0052 0.1798 0.5530 0.2123 0.0073 0.0000 0.0000	0.0001 0.002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0001 0.002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0001 0.002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002
128	49	50	0.0002 0.0357 0.2539 0.4647 0.2215 0.2272 0.0008 0.0000	0.0002 0.0357 0.0094 0.1112 0.2798 0.0002 0.0002 0.0000	0.0002 0.0002 0.5243 0.2658 0.0261 0.0002 0.0002 0.0000	0.0002 0.0002 0.2367 0.5439 0.0942 0.0002 0.0002 0.0000	0.0002 0.0002 0.2367 0.5439 0.0942 0.0002 0.0002 0.0000	0.0002 0.0002 0.2367 0.5439 0.0942 0.0002 0.0002 0.0000
129	51	52	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002
130	53	54	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002
131	55	56	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002
132	57	58	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002
133	59	60	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002
134	61	62	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002

TABLE 17. ADJUSTED FRACTIONAL INEFFECTIVE YIELDS FOR 14MEV FISSION.
(CONT.)

			2321H	233U	238U	239PU	240PU	241PU
131	46	47	0.0001 0.0027 0.1301 0.5799 0.2794 0.0133 0.0001	0.0001 0.0193 0.3461 0.5546 0.0835 0.010 0.0000	0.0001 0.0430 0.4315 0.4644 0.0518 0.0035 0.0000	0.0001 0.0430 0.4315 0.4644 0.0518 0.0035 0.0000	0.0001 0.0430 0.4315 0.4644 0.0518 0.0035 0.0000	0.0001 0.0430 0.4315 0.4644 0.0518 0.0035 0.0000
132	48	49	0.0002 0.0023 0.1261 0.5342 0.2861 0.0161 0.0031 0.0000	0.0002 0.0023 0.1261 0.5342 0.2861 0.0161 0.0031 0.0000	0.0002 0.0023 0.1261 0.5342 0.2861 0.0161 0.0031 0.0000	0.0002 0.0023 0.1261 0.5342 0.2861 0.0161 0.0031 0.0000	0.0002 0.0023 0.1261 0.5342 0.2861 0.0161 0.0031 0.0000	0.0002 0.0023 0.1261 0.5342 0.2861 0.0161 0.0031 0.0000
133	50	51	0.0002 0.0023 0.1261 0.5342 0.2861 0.0161 0.0031 0.0000	0.0002 0.0023 0.1261 0.5342 0.2861 0.0161 0.0031 0.0000	0.0002 0.0023 0.1261 0.5342 0.2861 0.0161 0.0031 0.0000	0.0002 0.0023 0.1261 0.5342 0.2861 0.0161 0.0031 0.0000	0.0002 0.0023 0.1261 0.5342 0.2861 0.0161 0.0031 0.0000	0.0002 0.0023 0.1261 0.5342 0.2861 0.0161 0.0031 0.0000
134	52	53	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002	0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002 0.0002

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132	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
133	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
134	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
135	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
136	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
137	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
138	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65
139	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65

17. ADJUSTED FARM INCOME YIELDS FOR 14-MEV FISSTION.

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TABLE 17. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION.
(CONT.)

MASS NO.	ATOMIC NO.	232TH	232U	235U	239U	239PU	240U	241PU
144	52	C.C	0.0003	C.C	C.CCCC	C.C	C.C	C.C
	54	C.C	0.0141	0.0052	0.0095	C.0108	C.C	C.C
	55	C.C	0.5849	0.6036	0.2534	0.C	C.C	C.C
	56	C.C	0.5055	0.2013	0.5841	C.C	C.C	C.C
	57	C.C	0.0794	0.0099	0.1458	C.C	C.C	C.C
	58	C.C	0.0013	0.0006	0.0034	C.C	C.C	C.C
	59	C.C	0.0000	0.C	0.0000	C.C	C.C	C.C
	60	C.C	0.C	0.C	0.C	C.C	C.C	C.C
145	52	C.C	C.C	C.C	C.CCCC	C.C	C.C	C.C
	54	C.C	0.0006	0.0006	0.0000	C.0015	C.C	C.C
	55	C.C	0.052	0.0052	0.0095	C.0959	C.C	C.C
	56	C.C	0.1799	0.4489	0.5460	C.C	C.C	C.C
	57	C.C	0.5976	0.5203	0.2335	C.C	C.C	C.C
	58	C.C	0.2153	0.0175	0.0206	C.C	C.C	C.C
	59	C.C	0.0075	0.0000	0.0001	C.C	C.C	C.C
	60	C.C	0.0000	0.C	0.0000	C.C	C.C	C.C
146	54	C.C	0.C	0.0001	C.CCCC	C.C	C.C	C.C
	55	C.C	0.0006	0.0141	0.0248	C.0015	C.C	C.C
	56	C.C	0.0583	0.2299	0.3529	C.0052	C.C	C.C
	57	C.C	0.4839	0.5476	0.5334	C.C	C.C	C.C
	58	C.C	0.4238	0.2046	0.0862	C.C	C.C	C.C
	59	C.C	0.0386	0.0112	0.0013	C.C	C.C	C.C
	60	C.C	0.0003	0.0001	0.0000	C.C	C.C	C.C
	61	C.C	0.C	0.0000	0.C	C.C	C.C	C.C
147	54	C.C	C.C	C.CCCC	C.CCCC	C.C	C.C	C.C
	55	C.C	C.C	C.0015	C.0032	C.C	C.C	C.C
	56	C.C	0.0050	0.0152	0.1407	C.0012	C.C	C.C
	57	C.C	0.2243	0.4691	0.5818	C.0040	C.C	C.C
	58	C.C	0.5944	0.4099	0.2604	C.C	C.C	C.C
	59	C.C	0.1635	0.0495	0.0115	C.C	C.C	C.C
	60	C.C	0.0042	0.0007	0.0000	C.C	C.C	C.C
	61	C.C	0.C	0.0000	0.C	C.C	C.C	C.C
	62	C.C	0.C	0.C	0.C	C.C	C.C	C.C

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TABLE 17. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION.
(CONT.)

MASS NO.	ATOMIC NO.	232TH	233U	235U	238U	239U	239PU	240U	241PU
148	54	C.C	C.C	C.CCCC	C.C	C.C	C.C	C.C	C.C
	55	C.C	C.C	C.0009	C.0037	C.0003	C.C	C.C	C.C
	56	C.C	C.C	C.0768	C.0591	C.0401	C.C	C.C	C.C
	57	C.C	C.C	0.5325	0.2848	0.4273	C.C	C.C	C.C
	58	C.C	C.C	0.3705	0.2010	0.0554	C.C	C.C	C.C
	59	C.C	C.C	0.0247	0.0293	0.0006	C.C	C.C	C.C
	60	C.C	C.C	0.0001	0.0013	0.0000	C.C	C.C	C.C
	61	C.C	C.C	0.CCCC	0.0000	0.C	C.C	C.C	C.C
	62	C.C	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C
149	55	C.C	C.C	C.0001	C.0017	C.0001	C.C	C.C	C.C
	56	C.C	C.C	0.0179	C.1016	C.0180	C.C	C.C	C.C
	57	C.C	C.C	0.3142	C.5564	C.3194	C.C	C.C	C.C
	58	C.C	C.C	0.5615	0.3273	C.5567	C.C	C.C	C.C
	59	C.C	C.C	0.1014	C.0194	C.1057	C.C	C.C	C.C
	60	C.C	C.C	C.0019	C.0001	C.0018	C.C	C.C	C.C
	61	C.C	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C
	62	C.C	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C
	63	C.C	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C
150	55	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C
	56	C.C	C.C	C.0027	C.0256	C.0754	C.C	C.C	C.C
	57	C.C	C.C	0.1301	C.3683	C.5164	C.C	C.C	C.C
	58	C.C	C.C	C.5799	C.9217	C.3765	C.C	C.C	C.C
	59	C.C	C.C	C.0133	C.012	C.002	C.C	C.C	C.C
	60	C.C	C.C	C.0001	C.0000	C.0000	C.C	C.C	C.C
	61	C.C	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C
	62	C.C	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C
	63	C.C	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C
151	56	C.C	C.C	C.CCC	C.CCC	C.CCC	C.C	C.C	C.C
	57	C.C	C.C	C.0047	C.0167	C.C	C.C	C.C	C.C
	58	C.C	C.C	C.0372	C.1718	C.2207	C.C	C.C	C.C
	59	C.C	C.C	C.4186	C.5965	C.5536	C.C	C.C	C.C
	60	C.C	C.C	C.4985	C.2249	C.1028	C.C	C.C	C.C
	61	C.C	C.C	C.0603	C.0017	C.0000	C.C	C.C	C.C
	62	C.C	C.C	C.0307	C.0000	C.0000	C.C	C.C	C.C
	63	C.C	C.C	C.0000	C.0000	C.0000	C.C	C.C	C.C

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TABLE 17. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION.

(CONT'D.)

MASS NO.	ATOMIC NO.	232Th	233U	235U	238U	239fU	240PU	241PU
152	56	C.C	C.C	C.C	C.CCCC	C.C	C.C	C.C
	57	C.C	C.00CC	C.0005	C.0032	C.C	C.0	C.0
58	58	C.C	C.0072	C.0546	C.1407	C.C	C.0	C.0
	59	C.C	C.2107	C.4749	C.5818	C.C	C.0	C.0
60	C.C	C.5980	C.4348	C.2604	C.C	C.0	C.0	C.0
	61	C.C	C.1841	C.0415	C.0115	C.C	C.0	C.0
62	C.C	C.0054	C.0003	C.0000	C.C	C.0	C.0	C.0
	63	C.C	C.0000	C.0000	C.C	C.0	C.0	C.0
153	57	C.C	C.0	C.CCCC	C.CCCC	C.C	C.C	C.C
	58	C.C	C.0009	C.0123	C.0430	C.C	C.0	C.0
59	C.C	C.0130	C.2694	C.4375	C.C	C.0	C.0	C.0
	60	C.C	C.5150	C.5847	C.4644	C.C	C.0	C.0
61	C.C	C.3865	C.1372	C.0518	C.C	C.0	C.0	C.0
	62	C.C	C.0298	C.003C	C.0005	C.C	C.0	C.0
63	C.C	C.0002	C.0000	C.0000	C.C	C.0	C.0	C.0
	64	C.C	C.0030	C.0	C.C	C.0	C.0	C.0
154	57	C.C	C.C	C.CCCC	C.CCCC	C.C	C.0	C.0
	58	C.C	C.0001	C.0015	C.CC95	C.C	C.0	C.0
59	C.C	C.0179	C.1176	C.2387	C.C	C.0	C.0	C.0
	60	C.C	C.3162	C.5626	C.5883	C.C	C.0	C.0
61	C.C	C.5619	C.3166	C.1572	C.C	C.0	C.0	C.0
	62	C.C	C.1014	C.0179	C.0039	C.C	C.0	C.0
63	C.C	C.0019	C.0001	C.0000	C.C	C.0	C.0	C.0
	64	C.C	C.0000	C.0	C.C	C.0	C.0	C.0
155	56	C.C	C.0	C.0	C.CCCC	C.C	C.0	C.0
	58	C.C	C.0	C.0	C.0002	C.0959	C.C	C.0
59	C.C	C.0035	C.0334	C.0334	C.5460	C.C	C.0	C.0
	60	C.C	C.1481	C.4031	C.2335	C.C	C.0	C.0
61	C.C	C.5892	C.5027	C.0206	C.C	C.0	C.0	C.0
	62	C.C	C.2539	C.0665	C.0001	C.C	C.0	C.0
63	C.C	C.0107	C.0000	C.0000	C.C	C.0	C.0	C.0
	64	C.C	C.0000	C.0	C.C	C.0	C.0	C.0

TABLE 17. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14MEV FISSION.

(CONT'D.)

MASS NO.	ATOMIC NO.	222Th	223U	235U	238U	239fU	240PU	241PU
156	56	C.C	C.C	C.CCCC	C.CC02	C.C	C.C	C.C
	59	C.C	C.0306	C.0086	C.0334	C.C	C.0	C.0
60	C.C	C.0564	C.2297	C.4011	C.C	C.0	C.0	C.0
	61	C.C	C.4791	C.5966	C.4969	C.C	C.0	C.0
62	C.C	C.4291	C.1677	C.0692	C.C	C.0	C.0	C.0
	63	C.C	C.0403	C.0045	C.0008	C.C	C.0	C.0
64	C.C	C.0003	C.0000	C.0000	C.C	C.0	C.0	C.0
	65	C.C	C.0000	C.0	C.C	C.0	C.0	C.0
157	56	C.C	C.C	C.CCCC	C.CCCC	C.C	C.0	C.0
	59	C.C	C.0001	C.0015	C.0079	C.C	C.0	C.0
60	C.C	C.0145	C.0959	C.2197	C.C	C.0	C.0	C.0
	61	C.C	C.2894	C.5495	C.5921	C.C	C.0	C.0
62	C.C	C.5754	C.2391	C.1731	C.C	C.0	C.0	C.0
	63	C.C	C.0024	C.0001	C.0000	C.C	C.0	C.0
64	C.C	C.0000	C.0	C.C	C.0	C.0	C.0	C.0
	65	C.C	C.0000	C.0	C.C	C.0	C.0	C.0
158	56	C.C	C.C	C.CCCC	C.CCCC	C.C	C.0	C.0
	59	C.C	C.0003	C.0049	C.0228	C.C	C.0	C.0
60	C.C	C.0224	C.0266	C.0852	C.C	C.0	C.0	C.0
	61	C.C	C.1233	C.3707	C.5319	C.C	C.0	C.0
62	C.C	C.5754	C.5278	C.3550	C.C	C.0	C.0	C.0
	63	C.C	C.2894	C.0892	C.0241	C.C	C.0	C.0
64	C.C	C.3145	C.0011	C.0001	C.0000	C.C	C.0	C.0
	65	C.C	C.0001	C.0000	C.0000	C.C	C.0	C.0
159	56	C.C	C.CCCC	C.CCCC	C.C	C.0	C.0	C.0
	60	C.C	C.0003	C.0359	C.1759	C.C	C.0	C.0
61	C.C	C.4133	C.4931	C.5916	C.5370	C.C	C.0	C.0
	62	C.C	C.2202	C.2202	C.0889	C.C	C.0	C.0
63	C.C	C.0622	C.0622	C.0075	C.0013	C.C	C.0	C.0
	64	C.C	C.0007	C.0007	C.0000	C.C	C.0	C.0
65	C.C	C.3500	C.3500	C.3500	C.C	C.0	C.0	C.0
66	C.C	C.0000	C.0000	C.0000	C.C	C.0	C.0	C.0

MASS NO.	ATOMIC NO.	TABLE 17. ADJUSTED FRACTIONAL INDEPENDENT YIELDS FOR 14 MEV FISSION. (CONT.)					
		232Th	233L	235U	238L	239PU	240PU
160	59	C.C	C.C	C.C	C.CCCC	C.C	C.C
	60	C.C	C.C	C.0000	C.0041	C.C	C.C
	61	C.C	C.C	C.0068	C.0110	C.1595	C.C
	62	C.C	C.C	C.2062	C.5508	C.5890	C.C
	63	C.C	C.C	C.5983	C.4398	C.2358	C.C
	64	C.C	C.C	C.1984	C.0049	C.0092	C.C
	65	C.C	C.C	C.0057	C.0000	C.0000	C.C
	66	C.C	C.C	C.0CCC	C.0	C.C	C.C
	67	C.C	C.C	C.0001	C.0005	C.C	C.C
	68	C.C	C.C	C.0009	C.0134	C.0529	C.C
	69	C.C	C.C	C.0730	C.2797	C.4673	C.C
	70	C.C	C.C	C.5150	C.5806	C.4345	C.C
	71	C.C	C.C	C.3865	C.1302	C.0421	C.C
	72	C.C	C.C	C.0293	C.0327	C.0004	C.C
	73	C.C	C.C	C.0002	C.0000	C.0000	C.C
	74	C.C	C.C	C.0000	C.C	C.C	C.C
	75	C.C	C.C	C.0001	C.0000	C.C	C.C
	76	C.C	C.C	C.0000	C.C	C.C	C.C
	77	C.C	C.C	C.0000	C.C	C.C	C.C
	78	C.C	C.C	C.0000	C.C	C.C	C.C
	79	C.C	C.C	C.0000	C.C	C.C	C.C
	80	C.C	C.C	C.0000	C.C	C.C	C.C
	81	C.C	C.C	C.0000	C.C	C.C	C.C
	82	C.C	C.C	C.0000	C.C	C.C	C.C
	83	C.C	C.C	C.0000	C.C	C.C	C.C
	84	C.C	C.C	C.0000	C.C	C.C	C.C
	85	C.C	C.C	C.0000	C.C	C.C	C.C
	86	C.C	C.C	C.0000	C.C	C.C	C.C
	87	C.C	C.C	C.0000	C.C	C.C	C.C
	88	C.C	C.C	C.0000	C.C	C.C	C.C
	89	C.C	C.C	C.0000	C.C	C.C	C.C
	90	C.C	C.C	C.0000	C.C	C.C	C.C
	91	C.C	C.C	C.0000	C.C	C.C	C.C
	92	C.C	C.C	C.0000	C.C	C.C	C.C
	93	C.C	C.C	C.0000	C.C	C.C	C.C
	94	C.C	C.C	C.0000	C.C	C.C	C.C
	95	C.C	C.C	C.0000	C.C	C.C	C.C
	96	C.C	C.C	C.0000	C.C	C.C	C.C
	97	C.C	C.C	C.0000	C.C	C.C	C.C
	98	C.C	C.C	C.0000	C.C	C.C	C.C
	99	C.C	C.C	C.0000	C.C	C.C	C.C
	100	C.C	C.C	C.0000	C.C	C.C	C.C
	101	C.C	C.C	C.0000	C.C	C.C	C.C

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TABLE 18
Summary of adjustments to fractional independent yields

Element	Fission Energy	Odd-even Z effect*		Proton balance (θ in Eqn. 11)	ϕ (see text)	$(\text{Var } \phi)^{\frac{1}{2}}$	$\epsilon = \frac{\phi}{\Delta Z} \%$
		Max.	Min.				
^{232}Th	Fast 14 Mev	- **	-	0.99825	15.78	± 16.51	4.64
^{233}U	Thermal	1.28	1.00	0.99964	3.31	± 8.0	1.27
	Fast 14 Mev	1.28	1.00	1.0001	- 0.92	± 23.1	- 0.35
	-	-	-	1.0055	-50.32	± 14.5	-19.4
^{235}U	Thermal	1.06	0.88	0.99927	6.72	± 6.62	2.23
	Fast 14 Mev	1.06	0.88	0.99927	6.72	± 6.62	2.23
	-	-	-	1.0066	-60.32	± 14.70	-20.0
^{238}U	Fast 14 Mev	- **	-	1.0006	- 5.52	± 20.5	- 1.55
	-	-	-	0.99761	22.04	± 12.34	6.2
^{239}Pu	Thermal	1.27	1.04	0.99998	0.19	± 10.5	0.07
	Fast	1.27	1.04	1.0002	- 1.88	± 9.11	- 0.69
^{240}Pu	Fast	-	-	1.0013	-12.20	± 20.67	- 4.21
^{241}Pu	Thermal	-	-	1.0004	- 3.76	± 11.8	- 1.19
	Fast	-	-	1.0003	- 2.82	± 20.0	- 0.89

(1) (2)

*The individual fractional independent yields of Table 13, Ref. 6, for a given mass number add up to 1.0000. These individuals were multiplied by the odd-even Z factors of Ref. 6 and the resultant sums were in general not equal to 1.0000. The figure in the table records for each reaction, the maximum and the minimum of the resultant sums which were used to renormalize the individuals so that once more they added to 1.0000.

**The fractional independent yields were recalculated using the Z_p values recommended in Ref. 6.

(1) Mean value = 5.93; omitting 14 Mev results mean = + 0.61.

(2) S.D. about mean ± 22.8 ; omitting 14 Mev results S.D. about mean = ± 7.11 .

TABLE 19

Yields of complementary fission product elements (percentages)

THERMAL FISSION	^{233}U		^{235}U		^{239}Pu		^{241}Pu	
	Ge	$0.611 \pm .035$	Ge	$0.501 \pm .024$	Se	$1.32 \pm .04$	Se	$1.16 \pm .047$
Nd	$0.954 \pm .016$		Nd	$0.543 \pm .008$	Nd	$1.30 \pm .05$	Nd	$1.14 \pm .023$
As	$1.51 \pm .064$	As	$1.37 \pm .037$	Br	$1.54 \pm .05$	Br	$2.19 \pm .105$	
Pr	$1.59 \pm .025$	Pr	$1.23 \pm .017$	Pr	$1.68 \pm .04$	Pr	$2.28 \pm .044$	
Se	$6.24 \pm .15$	Se	$4.67 \pm .11$	Kr	$4.70 \pm .09$	Kr	$3.88 \pm .158$	
Ce	$6.07 \pm .11$	Ce	$3.87 \pm .06$	Ce	$4.55 \pm .13$	Ce	$3.89 \pm .048$	
Br	$6.55 \pm .15$	Br	$5.13 \pm .14$	Rb	$5.21 \pm .06$	Rb	$6.43 \pm .25$	
La	$6.50 \pm .10$	La	$6.58 \pm .05$	La	$4.75 \pm .15$	La	$6.19 \pm .06$	
Kr	$18.4 \pm .32$	Kr	$14.50 \pm .48$	Sr	$11.5 \pm .18$	Sr	$9.73 \pm .32$	
Ba	$18.1 \pm .31$	Ba	$16.0 \pm .13$	Ba	$14.9 \pm .36$	Ba	$9.95 \pm .11$	
Rb	$10.6 \pm .13$	Rb	$12.2 \pm .13$	Y	$11.0 \pm .27$	Y	$13.2 \pm .54$	
Cs	$9.83 \pm .17$	Cs	$9.51 \pm .08$	Cs	$10.4 \pm .22$	Cs	$12.2 \pm .22$	
Sr	$21.0 \pm .29$	Sr	$19.4 \pm .16$	Zr	$21.7 \pm .76$	Zr	$15.8 \pm .72$	
Xe	$20.9 \pm .30$	Xe	$20.1 \pm .17$	Xe	$23.0 \pm .75$	Xe	$14.9 \pm .57$	
Y	$10.0 \pm .18$	Y	$12.0 \pm .10$	Nb	$14.6 \pm .47$	Nb	$16.4 \pm .83$	
I	$10.2 \pm .17$	I	$13.2 \pm .22$	I	$11.4 \pm .28$	I	$16.5 \pm .34$	
Zr	$14.0 \pm .33$	Zr	$15.6 \pm .20$	Mo	$17.7 \pm .69$	Mo	$14.1 \pm .79$	
Te	$15.9 \pm .25$	Te	$15.4 \pm .25$	Tc	$14.9 \pm .29$	Tc	$15.7 \pm .28$	
Nb	$5.36 \pm .14$	Nb	$8.87 \pm .16$	Tc	$5.75 \pm .29$	Tc	$9.15 \pm .59$	
Sb	$4.83 \pm .14$	Sb	$7.97 \pm .11$	Sb	$6.64 \pm .17$	Sb	$10.8 \pm .17$	
Mo	$4.15 \pm .16$	Mo	$4.37 \pm .08$	Ru	$3.70 \pm .20$	Ru	$5.25 \pm .40$	
Sn	$3.96 \pm .23$	Sn	$5.25 \pm .22$	Sn	$4.36 \pm .25$	Sn	$4.50 \pm .17$	
Tc	$0.65 \pm .030$	Tc	$0.546 \pm .022$	Rh	$0.771 \pm .034$	Rh	$1.71 \pm .12$	
In	$0.82 \pm .05$	In	$0.440 \pm .027$	In	$0.807 \pm .051$	In	$1.13 \pm .07$	
Ru	$0.28 \pm .02$	Ru	$0.144 \pm .008$	Pd	$0.271 \pm .10$	Pd	$.282 \pm .015$	
Cd	$0.25 \pm .01$	Cd	$0.128 \pm .008$	Cd	$0.280 \pm .012$	Cd	$.220 \pm .009$	
Rh	$0.077 \pm .005$	Rh	$0.035 \pm .001$					
Ag	$0.052 \pm .002$	Ag	$0.032 \pm .001$					
Pd	$0.079 \pm .004$	Pd	$.034 \pm .002$					
Pd	$0.079 \pm .004$	Pd	$.034 \pm .002$					

TABLE 19

(Cont'd)

FAST FISSION	^{232}Th	^{233}U	^{235}U	^{238}U	^{239}Pu	^{240}Pu	^{241}Pu
	Ge	Ge	Ge	Ge	Ge	Ge	Ge
As	$5.16 \pm .23$	As	$2.60 \pm .18$	As	$1.58 \pm .045$	As	$0.458 \pm .029$
La	$6.65 \pm .27$	Pr	$1.79 \pm .10$	Pr	$1.40 \pm .022$	Pr	$0.833 \pm .059$
Se	$12.1 \pm .55$	Se	$9.58 \pm .64$	Se	$4.97 \pm .085$	Se	$1.57 \pm .10$
Ba	$13.3 \pm .48$	Ce	$6.41 \pm .34$	Ce	$4.03 \pm .062$	Ce	$1.65 \pm .10$
Br	$16.5 \pm .65$	Zr	$7.86 \pm .51$	Zr	$4.99 \pm .085$	Zr	$3.90 \pm .20$
Cs	$17.5 \pm .57$	La	$6.34 \pm .35$	La	$6.00 \pm .086$	La	$3.28 \pm .14$
Kr	$17.9 \pm .57$	Kr	$18.9 \pm .86$	Kr	$13.2 \pm .35$	Kr	$8.51 \pm .54$
Xe	$18.9 \pm .66$	Xe	$18.1 \pm .90$	Xe	$16.0 \pm .24$	Xe	$7.38 \pm .33$
Rb	20.1 ± 1.16	Rb	$8.31 \pm .49$	Rb	$11.1 \pm .45$	Rb	$9.75 \pm .18$
I	$16.3 \pm .58$	Cs	$10.6 \pm .47$	Cs	$9.57 \pm .16$	Cs	$9.25 \pm .18$
Sr	$15.1 \pm .62$	Sr	$16.0 \pm .98$	Sr	$18.8 \pm .54$	Sr	$13.1 \pm .56$
Te	$11.8 \pm .46$	Xe	$20.4 \pm .96$	Xe	$19.6 \pm .51$	Xe	$13.2 \pm .52$
Y	$8.59 \pm .34$	Y	$9.06 \pm .54$	Y	$12.2 \pm .26$	Y	$15.9 \pm .64$
Sb	$7.12 \pm .38$	I	$9.10 \pm .35$	I	$12.7 \pm .22$	I	$18.2 \pm .86$
Zr	$3.01 \pm .11$	Zr	$14.9 \pm .76$	Zr	$16.4 \pm .22$	Zr	21.4 ± 1.34
Ga	$2.61 \pm .16$	Te	$14.0 \pm .92$	Te	$15.0 \pm .23$	Te	$19.0 \pm .45$
Nb	$0.58 \pm .02$	Nb	$4.85 \pm .24$	Nb	$9.84 \pm .17$	Nb	15.5 ± 1.04
In	$0.80 \pm .03$	Sb	$5.59 \pm .38$	In	$8.06 \pm .17$	Sb	$7.12 \pm .18$
Mo	$0.121 \pm .016$	Mo	$2.65 \pm .29$	Mo	$5.35 \pm .15$	Mo	$5.51 \pm .37$
Cd	$0.204 \pm .007$	Sn	$6.15 \pm .39$	Sn	$4.74 \pm .13$	Sn	$5.67 \pm .32$
Tc	$0.070 \pm .003$	Tc	$0.474 \pm .027$	Tc	$0.704 \pm .030$	Tc	$0.908 \pm .052$
Ag	$0.128 \pm .006$	In	$1.63 \pm .089$	In	$0.431 \pm .014$	In	$1.23 \pm .077$
Ru	$0.096 \pm .004$	Ru	$0.324 \pm .014$	Ru	$0.205 \pm .010$	Ru	$0.133 \pm .009$
Pd	$0.111 \pm .034$	Pd	$0.853 \pm .028$	Pd	$0.276 \pm .009$	Pd	$0.182 \pm .011$
Rh	$0.108 \pm .005$	Rh	$0.144 \pm .011$	Rh	$0.091 \pm .008$	Rh	$0.040 \pm .002$
Rh	$0.108 \pm .006$	Ag	$0.241 \pm .009$	Ag	$0.115 \pm .004$	Ag	$0.052 \pm .002$
Pd	$0.284 \pm .012$	Pd	$0.146 \pm .005$	Pd	$0.028 \pm .001$	Pd	$0.574 \pm .075$
Pd	$0.284 \pm .012$	Pd	$0.146 \pm .005$	Pd	$0.028 \pm .001$	Pd	$0.518 \pm .027$

TABLE 19

(Cont'd)

	^{233}U	^{235}U	^{238}U
14 MeV FISSION			
Ge	1.10 \pm .07	Ge 0.740 \pm .045	Ge 0.830 \pm .055
Nd	1.61 \pm .09	Nd 0.770 \pm .058	Nd 0.849 \pm .042
As	2.88 \pm .14	As 2.31 \pm .12	As 1.91 \pm .07
Pr	1.80 \pm .10	Pr 1.33 \pm .08	Pr 2.21 \pm .14
Se	5.19 \pm .26	Se 4.22 \pm .27	Se 3.42 \pm .10
Ce	3.17 \pm .17	Ce 2.41 \pm .13	Ce 2.83 \pm .15
Br	7.17 \pm .45	Br 6.03 \pm .31	Br 5.24 \pm .27
La	5.25 \pm .29	La 5.45 \pm .28	La 5.25 \pm .24
Kr	11.3 \pm .57	Kr 10.3 \pm .41	Kr 7.46 \pm .24
Ba	10.1 \pm .42	Ba 8.58 \pm .36	Ba 8.25 \pm .30
Rb	11.1 \pm .42	Rb 12.5 \pm .63	Rb 9.59 \pm .41
Cs	10.6 \pm .33	Cs 8.11 \pm .36	Cs 10.7 \pm .46
Sr	13.2 \pm .54	Sr 13.1 \pm .59	Sr 11.9 \pm .56
Xe	12.7 \pm .63	Xe 13.3 \pm .70	Xe 12.3 \pm .40
Y	11.7 \pm .45	Y 12.5 \pm .65	Y 13.9 \pm .59
I	10.7 \pm .42	I 12.6 \pm .64	I 13.4 \pm .41
Zr	10.1 \pm .44	Zr 10.9 \pm .62	Zr 14.6 \pm .57
Te	10.8 \pm .33	Te 9.92 \pm .47	Te 13.9 \pm .29
Nb	7.54 \pm .42	Nb 10.4 \pm .52	Nb 10.5 \pm .41
Sb	7.24 \pm .34	Sb 11.4 \pm .41	Sb 11.4 \pm .28
Mo	5.51 \pm .33	Mo 5.59 \pm .32	Mo 6.53 \pm .34
Sn	6.94 \pm .37	Sn 10.7 \pm .57	Sn 7.05 \pm .33
Tc	3.82 \pm .25	Tc 3.24 \pm .21	Tc 4.01 \pm .21
In	6.92 \pm .31	In 5.67 \pm .29	In 5.22 \pm .24
Ru	3.14 \pm .20	Ru 2.99 \pm .17	Ru 3.40 \pm .19
Cd	5.29 \pm .24	Cd 5.02 \pm .24	Cd 4.24 \pm .19
Rh	3.99 \pm .24	Rh 3.10 \pm .15	Rh 2.76 \pm .13
Ag	4.18 \pm .20	Ag 3.55 \pm .17	Ag 2.80 \pm .13
Pd	4.06 \pm .22	Pd 3.78 \pm .21	Pd 2.61 \pm .13
Pd	4.06 \pm .22	Pd 3.78 \pm .21	Pd 2.61 \pm .13

TABLE 20

Values of $\bar{\nu}_p$ used in this work

Fissile Nuclide	^{232}Th	^{233}U	^{235}U	^{238}U	^{239}Pu	^{240}Pu	^{241}Pu
Thermal Fission	-	2.487	2.43	-	2.871	-	2.969
Fast Fission	2.30	2.50	2.45	2.76	2.92	3.15	2.97
14 MeV Fission	4.06	4.21	4.40	4.46	-	-	-