# FACTORIZATION OF THE $j = 7/2$ SHELL OF NEUTRONS AND PROTONS

## Transformation Coefficients to States of Good Particle Number

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Complete tabulations are given, for the $j = 7/2$ nuclear shell, of the transformation coefficients to states of good particle number needed in a new method of nuclear spectroscopy based on a quasiparticle factorization of the $j$-shell. The method leads to a classification scheme in which total angular momentum and isospin are good quantum numbers and in which the calculation of matrix elements can be carried out simply by standard techniques of Racah algebra, without the use of coefficients of fractional parentage and with the use of only a very small number of reduced matrix elements. These reduced matrix elements also are tabulated. A few sample calculations show how matrix elements of one- and two-body operators, single nucleon and pair creation operators, . . . , can be calculated with this technique and the present tabulations.

## CONTENTS

$$\sum_{J''_\mu T''_\mu} \frac{\langle J''_\mu T''_\mu \| [M \times M]^{J_o T_o} \| J_\mu T_\mu \rangle^2}{(2J_\mu + 1)(2T_\mu + 1)}$$

## INTRODUCTION

The basic technical problem in nuclear-shell theory involves the calculation of matrix elements of the physically relevant operators such as one- and two-body operators, pair creation operators, etc., between definite states of an $n$-particle configuration. The standard technique for the evaluation of such matrix elements makes use of the fractional parentage expansion. Despite this fact tabulations of coefficients of fractional parentage (cfp) for configurations $j^n$ are quite limited. For identical-particle configurations, $n \to n - 1$ cfp are available in tabulated form.[1-3] For identical-particle configurations tabulations also have been given for the expansion coefficients which express the $n$-particle matrix elements of a two-body interaction in terms of the 2-particle matrix elements (Band and Kharitonov[4]). For configurations of both protons and neutrons complete tabulations of $n \to n - 1$ and $n \to n - 2$ cfp in the isospin formalism are available only for $j = 3/2$ and $5/2$ shells (Towner and Hardy[5]). A similar tabulation for the full $j = 7/2$ shell would involve a prohibitively large number of cfp. It would be impractical to give such a tabulation in printed form; and for $j = 7/2$, tables of $n \to n - 1$ cfp in isospin formalism are available only for $n \leq 5$ (L. B. Hubbard[6]). Although nuclear shell-model computer codes[7,8] have reduced such problems to efficient machine calculations, there are many instances

where a few specific matrix elements are needed and where a quick calculation from relatively simple tabulations (without the need of a computer code) may be of particular value. An alternate method of nuclear spectroscopy recently has been developed in terms of a factorization of the $j$-shell of both neutrons and protons in terms of a new type of quasiparticle operator.[9,10] The method is a generalization of one developed by Armstrong and Judd[11] for the atomic $l$-shell. The new classification scheme is complete (requiring no arbitrary labels) for $j \leq 7/2$. The calculation of matrix elements in this scheme may be carried out simply without the use of fractional-parentage coefficients, with the use of only a very small number of reduced matrix elements and with standard techniques of Racah algebra. The total angular momentum $J$ and isospin $T$ are good quantum numbers in the new scheme. However, the particle number $n$ is in general not a good quantum number. In order to calculate matrix elements between definite $n$-particle states it is necessary to calculate the transformation coefficients to states of good particle number. For the $j = 3/2$ and $5/2$ shells these have been tabulated in Ref. 10. These tabulations are extended here to the full $j = 7/2$ shell. The tabulation should be particularly useful in the calculation of matrix elements between states of large particle number ($n \geq 5$) and small isospin, where the cfp expansion becomes extremely cumbersome, and as a supplement to the cfp

tabulations of Ref. 6.

Since the new classification scheme may be somewhat unfamiliar, a brief review of the formalism is given in the following section where the notation also is established. The format of the tables is explained in USE OF TABLES which, in the first part, illustrates the use of the tables by means of a few examples and which, in the second part, makes a few sample calculations to illustrate fully the usefulness of the new technique.

## QUASIPARTICLE FACTORIZATION OF THE $j$-SHELL

The method and notation follow Ref. 10, where details and derivations are given.

In terms of conventional nucleon creation (annihilation) operators $a^\dagger_{m\,m_t}$ ($a_{m\,m_t}$), with $m_t = \pm 1/2$ for neutron/proton, the new quasiparticle fermion operators are defined by:

$$\lambda^\dagger_m = \frac{1}{\sqrt{2}}\{a^\dagger_{m,+\frac{1}{2}} - (-1)^{j-m}a_{-m,-\frac{1}{2}}\}$$

$$\lambda_m = (\lambda^\dagger_m)^\dagger$$

$$\mu^\dagger_m = \frac{1}{\sqrt{2}}\{a^\dagger_{m,-\frac{1}{2}} - (-1)^{j-m}a_{-m,+\frac{1}{2}}\}$$

$$\mu_m = (\mu^\dagger_m)^\dagger \tag{1}$$

where $m = j, \ldots, -j$.

In terms of these two sets of anticommuting fermion operators, angular momentum and quasispin operators are defined for the $\lambda$ and $\mu$ spaces:

$$(J_\lambda)_q = \sum_m \langle jm\,1q|j(m+q)\rangle[j(j+1)]^{\frac{1}{2}}\lambda^\dagger_{m+q}\lambda_m,$$

$$(J_\mu)_q = \sum_m \langle jm\,1q|j(m+q)\rangle[j(j+1)]^{\frac{1}{2}}\mu^\dagger_{m+q}\mu_m; \tag{2}$$

$$(T_\lambda)_+ = \sum_{m>0}(-1)^{j-m}\lambda^\dagger_m\lambda^\dagger_{-m},\ (T_\lambda)_- = (T_\lambda)^\dagger_+,$$

$$(T_\lambda)_0 = \frac{1}{4}\sum_m(\lambda^\dagger_m\lambda_m - \lambda_m\lambda^\dagger_m);$$

$$(T_\mu)_+ = \sum_{m>o}(-1)^{j-m}\mu^\dagger_{-m}\mu_m,\ (T_\mu)_- = (T_\mu)^\dagger_+,$$

$$(T_\mu)_0 = -\frac{1}{4}\sum_m(\mu^\dagger_m\mu_m - \mu_m\mu^\dagger_m). \tag{3}$$

It follows that

$$\mathbf{J} = \mathbf{J}_\lambda + \mathbf{J}_\mu$$

$$\mathbf{T} = \mathbf{T}_\lambda + \mathbf{T}_\mu \tag{4}$$

where $\mathbf{J}$ and $\mathbf{T}$ are the total angular momentum and isospin operators, respectively. The possible $J_\lambda\,T_\lambda$ (alternately $J_\mu\,T_\mu$) combinations (see Fig. 1) follow from the rules of identical particle spectroscopy (even though the $\lambda$ and $\mu$ particles are not real particles and the $J_\lambda$ and $J_\mu$, for example, not physical angular momenta).

| $T_\lambda(T_\mu)$ | $J_\lambda(J_\mu)$ | | | | |
|---|---|---|---|---|---|
| 0 | 2 | 4 | 5 | 8 | |
| $\frac{1}{2}$ | $\frac{3}{2}$ | $\frac{5}{2}$ | $\frac{9}{2}$ | $\frac{11}{2}$ | $\frac{15}{2}$ |
| 1 | 2 | 4 | 6 | | |
| $\frac{3}{2}$ | $\frac{7}{2}$ | | | | |
| 2 | 0 | | | | |

Fig. 1. Possible $T_\lambda J_\lambda$ (alternately $T_\mu J_\mu$) combinations

In terms of angular momentum coupled-state vectors the basis

$$|(J_\lambda J_\mu)JM(T_\lambda T_\mu)TM_T\rangle \tag{5}$$

furnishes a complete classification scheme for shells with $j \leq 7/2$. Due to the transformation [Eq. (1)], however, the number operator is not diagonal in the basis [Eq. (5)].

It is useful to define coupled state vectors either symmetric ($s$) or antisymmetric ($a$), to an interchange of the $\lambda$ and $\mu$ quantum numbers

$$|(ab)J(cd)T\rangle_{(s) \atop (a)}$$

$$= \sqrt{\tfrac{1}{2}}\{|(ab)J(cd)T\rangle$$

$$\pm (-1)^{J-a-b+T-c-d}|(ba)J(dc)T\rangle\}. \tag{6}$$

Quantum numbers $M$ and $M_T$ have been omitted for brevity but are quietly understood. Note that $\lambda$ quantum numbers always precede $\mu$ quantum numbers in the order of the coupling; thus $J_\lambda = a$ in the first term of the right-hand side of Eq. (6), while $J_\lambda = b$ in the second term. Note also that the normalized state vector $|(aa)J(cc)T\rangle$, with both $J_\lambda = J_\mu$ and $T_\lambda = T_\mu$, is a state vector with $(\sigma) = (s)$ or $(a)$ for $J - 2a + T - 2c =$ even or odd, respectively.

States of a definite nucleon number $n$ must be linear combinations of either ($s$) or ($a$) states according to the rules:

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For $n = 2j + 1 \pm 4k$, or $n = 2j \pm 4k$:

(s) states only,

For $n = 2j + 3 \pm 4k$, or $n = 2j + 2 \pm 4k$:

(a) states only,    (7)

where $k$ = integer.

In making the transformation to states of good particle number $n$, one finds it is useful to employ the seniority classification scheme and the quantum numbers of the five-dimensional quasispin and symplectic groups: $R(5) \times Sp(2j + 1)$. In particular, it will be useful to use the particle-hole antisymmetric quantum number $H_1$ in place of the particle number $n$. States of good particle number are then defined by the transformation:

$$| (vt)H_1\beta T;\alpha J\rangle$$

$$= \sum_{T_\lambda T_\mu} C^{(vt)T}_{H_1\beta;T_\lambda T_\mu} \sum_{J_\lambda J_\mu} D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu} | (J_\lambda J_\mu)J(T_\lambda T_\mu)T\rangle_{(\sigma)} \quad (8)$$

where $v$ = seniority number; $t$ = reduced isospin, $H_1 = \frac{1}{2}(n - 2j - 1) = \frac{1}{2}n - 4$; $\beta$ = the label which distinguishes multiple occurrences of states with the same $n$, $T$ in the representation $(vt)$, an $R(5)$ subgroup label; and $\alpha$ = a similar label which distinguishes multiple occurrences of states with the same $J$ in the representation $(vt)$, a $Sp(2j + 1)$ subgroup label. The subscript $(\sigma)$ refers to the symmetry label of Eq. (6) where, for each $n$, $(\sigma) = (s)$ or $(a)$ according to the rules, Eq. (7).

The transformation coefficients in Eq. (8) have been factored into two parts. The $C$-coefficients come from the quasispin (or seniority) symmetry of the basis and have been calculated with the help of recursion formulae obtained from the known structure of the $R(5)$ group. The $D$-coefficients carry the dependence on the subgroup structure of $Sp(2j + 1)$ and have been calculated by numerical techniques as outlined in Ref. 10.

## USE OF TABLES

### Transformation to States of Good Particle Number

*Example 1.* $|(vt)H_1T;J\rangle = |(00)00;0\rangle$
The state with $n = 8$, $v = 0$, $t = 0$, $T = 0$, $J = 0$. For $n = 8$, $H_1 = 0$. For this state the labels $\beta$ and $\alpha$ are not needed (but are enumerated as $\beta = 1$ in Table I and $\alpha = 1$ in Table II). For this state of even-$n$, line 1 of Fig. 2 gives the allowed $(T_\lambda T_\mu)$ pairs as: $(T_\lambda T_\mu) = (00)$, $(11)$, $(22)$. The possible $J_\lambda$ values for $T_\lambda = 0$, $1$, $2$ are given in Fig. 1 (similarly for $J_\mu$). Note that $J_\lambda = J_\mu$ since $J = 0$. The three nonzero $C^{(vt)T}_{H_1\beta;T_\lambda T_\mu}$ coefficients are read from Table I as

$$C^{(00)0}_{01;00} = .4841229 \text{ with allowed } (J_\lambda J_\mu)$$

$$= (22), (44), (55), (88)$$

$$C^{(00)0}_{01;11} = -.5229125 \text{ with allowed } (J_\lambda J_\mu)$$

$$= (22), (44), (66)$$

$$C^{(00)0}_{01;22} = .7015608 \text{ with allowed } (J_\lambda J_\mu) = (00).$$

Hence there are eight $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$ coefficients needed in the construction of $|(vt)H_1T;J\rangle = |(00)00;0\rangle$. These are read from Table II as:

$D^{000}_{(00)22} = .345033$     $D^{110}_{(00)22} = .430332$

$D^{000}_{(00)44} = .462910$     $D^{110}_{(00)44} = .577350$

$D^{000}_{(00)55} = .511766$     $D^{110}_{(00)66} = .693889$

$D^{000}_{(00)88} = .636209$     $D^{220}_{(00)00} = 1.$

The full-state vector then follows from Eq. (8),

$$|(vt)H_1T;J\rangle = |(00)00;0\rangle$$

$$= .167038|(22)0(00)0\rangle + .224105|(44)0(00)0\rangle$$

$$+ .247758|(55)0(00)0\rangle + .308003|(88)0(00)0\rangle$$

$$- .225026|(22)0(11)0\rangle - .301904|(44)0(11)0\rangle$$

$$- .362843|(66)0(11)0\rangle + .701561|(00)0(22)0\rangle.$$

Note that the states $|(J_\lambda J_\mu)J(T_\lambda T_\mu)T\rangle$ of this equation are all automatically $(s)$ states.

*Example 2.* The $n = 8$ state: $|(vt)H_1T;J\rangle = |(42)01;4\rangle$
From Fig. 2 it can be seen that there is only one allowed $(T_\lambda T_\mu)$ pair, $(T_\lambda T_\mu) = (3/2\ 1/2)$, and hence the $C$-coefficient $= 1$. For $(T_\lambda T_\mu) = (3/2\ 1/2)$, the allowed $(J_\lambda J_\mu)$-values, read from Fig. 1, and consistent with vector coupling to resultant $J = 4$, are $(J_\lambda J_\mu) = (7/2\ 3/2)$, $(7/2\ 5/2)$, $(7/2\ 9/2)$, $(7/2\ 11/2)$, $(7/2\ 15/2)$. The five $D$-coefficients in the expansion of $|(42)01;4\rangle$ in terms of $|(J_\lambda J_\mu)4(T_\lambda T_\mu)1\rangle_{(s)}$ are read from the $v = 4$ $t = 2$ entry of Table II and give

$$|(vt)H_1T;J\rangle = |(42)01;4\rangle$$

$$= .175933|(7/2\ 3/2)4(3/2\ 1/2)1\rangle_{(s)}$$

$$- .658281|(7/2\ 5/2)4(3/2\ 1/2)1\rangle_{(s)}$$

$$- .128388|(7/2\ 9/2)4(3/2\ 1/2)1\rangle_{(s)}$$

$$+ .645497|(7/2\ 11/2)4(3/2\ 1/2)1\rangle_{(s)}$$

$$- .320256|(7/2\ 15/2)4(3/2\ 1/2)1\rangle_{(s)}.$$

Note that the state vectors of the right-hand side of this equation are all of symmetry $(s)$ as defined by Eq. (6). Note also that Fig. 2 gives only entries with $T_\lambda \geq T_\mu$; but for $T_\lambda \neq T_\mu$ the symmetrized state vectors $(\sigma)$ of Eq. (8) always involve state vectors with both $T_\lambda > T_\mu$ and $T_\lambda < T_\mu$ (and, in this example, with both $J_\lambda = 7/2$ and $J_\mu = 7/2$), through Eq. (6).

*Example 3.* The $n = 7$ state:

$$|(vt)H_1T;J\rangle = |(1\ 1/2) - 1/2\ 5/2;7/2\rangle$$

Figure 3 shows that the allowed $(T_\lambda T_\mu)$ pairs are $(2\ 3/2)$ and $(1\ 3/2)$, with $(J_\lambda J_\mu) = (0\ 7/2)$ and $(J_\lambda J_\mu) = (2\ 7/2)$, $(4\ 7/2)$, $(6\ 7/2)$, respectively. Tables I and II lead to

Fig. 2. Possible $(T_\lambda T_\mu)$ values for fixed $vt$, $nT$, and $J$; even-particle number $n$. *Note:* The Table is limited to $n \leq 8$. The possible $T_\lambda T_\mu$ values are the same for $n$ holes as for $n$ particles

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$|(vt)H_1T;J\rangle = |(1\ 1/2) - 1/2\ 5/2;7/2\rangle$

$= .750000|(0\ 7/2)7/2(2\ 3/2)5/2\rangle_{(s)}$

$\quad - .284638|(2\ 7/2)7/2(1\ 3/2)5/2\rangle_{(s)}$

$\quad - .381881|(4\ 7/2)7/2(1\ 3/2)5/2\rangle_{(s)}$

$\quad - .458964|(6\ 7/2)7/2(1\ 3/2)5/2\rangle_{(s)}$

$= (3/4)|(0\ 7/2)7/2(2\ 3/2)5/2\rangle_{(s)}$

$\quad - \sum_{J=2,4,6} [7(2J+1)/16\cdot27]^{\frac{1}{2}}|(J\ 7/2)7/2(1\ 3/2)5/2\rangle_{(s)}.$

From Eq. (7) it can be seen that the $n = 9$ state with the same $(vt)T;J$—namely, $(1\ 1/2)5/2;7/2$—can be obtained from the above by replacing all $(s)$ state vectors with $(a)$ state vectors, except for a trivial overall change of sign, according to the Table I entry with $H_1 = + 1/2$.

### Sample Calculations of Matrix Elements

To calculate the matrix element of a physical operator, expressed in terms of $a^\dagger_{m\,m_t}$, $a_{m\,m_t}$ it is necessary only to express these in terms of spherical tensors

Fig. 3. Possible $(T_\lambda T_\mu)$ values for fixed $vt$, $nT$, and $J$; odd-particle number $n$. See note for Fig. 2

in the $\lambda$ and $\mu$ spaces and apply standard techniques of Racah algebra.

In terms of double spherical tensor operators $\Lambda^{j\,\frac{1}{2}}_{m\,m_t}$, $M^{j\,\frac{1}{2}}_{m\,m_t}$, the quasiparticle operators of Eq. (1) have spherical tensor character given by

$$\lambda^\dagger_m = \Lambda^{j\,\frac{1}{2}}_{m,+\frac{1}{2}} \qquad (-1)^{j-m}\lambda_{-m} = \Lambda^{j\,\frac{1}{2}}_{m,-\frac{1}{2}}$$

$$\mu^\dagger_m = M^{j\,\frac{1}{2}}_{m,-\frac{1}{2}} \qquad (-1)^{j-m}\mu_{-m} = M^{j\,\frac{1}{2}}_{m,+\frac{1}{2}} \qquad (9)$$

where the operator $\Lambda^{j\,\frac{1}{2}}_{m\,m_t}$ is a spherical tensor of rank $j$ in the $J$-part of the $\lambda$ space and of rank $\frac{1}{2}$ in the isospin (quasispin) part of the $\lambda$ space, similarly for $M$ in the $\mu$ space. From Eqs. (1) and (9),

$$a^\dagger_{m\pm\frac{1}{2}} = \frac{1}{\sqrt{2}}(\Lambda^{j\,\frac{1}{2}}_{m\pm\frac{1}{2}} + M^{j\,\frac{1}{2}}_{m\pm\frac{1}{2}});$$

$$(-1)^{j-m}a_{-m\mp\frac{1}{2}} = \mp\frac{1}{\sqrt{2}}(\Lambda^{j\,\frac{1}{2}}_{m\pm\frac{1}{2}} - M^{j\,\frac{1}{2}}_{m\pm\frac{1}{2}}). \qquad (10)$$

Matrix elements of the operators $\Lambda$ and $M$ in the vector coupled $|(J_\lambda J_\mu)J(T_\lambda T_\mu)T\rangle$ basis are reduced to double-barred matrix elements $\langle\Delta'J'_\lambda T'_\lambda\|\Lambda\|\Delta J_\lambda T_\lambda\rangle$, $\langle\Delta'J'_\mu T'_\mu\|M\|\Delta J_\mu T_\mu\rangle$ by standard formulae of Racah algebra. The $\Delta$ and $\Delta'$ are quantum numbers common to both $\lambda$ and $\mu$ spaces; [see Ref. 10; they characterize the irreducible representations $(\frac{1}{2}\,\frac{1}{2}\cdots\pm\frac{1}{2})$ of $R(8j + 4)$ in which the direct product of $\lambda$ and $\mu$ quasispin groups is imbedded]. These $\Delta$'s have only two possible values and are characterized completely by the sign of $(-1)^{2T_\lambda + 2T_\mu}$ and are hence redundant when both $T_\lambda$ and $T_\mu$ are given. Only the phase of the reduced matrix element of $\Lambda$ is $\Delta$-dependent; the reduced matrix element of $M$ is independent of $\Delta$. It is convenient to introduce $\Delta$-independent reduced matrix elements, identical for $\lambda$ and $\mu$ spaces, and symmetric to interchange of bra and ket labels, to be denoted by a double-barred matrix element with a prime superscript:

$$\langle\Delta'J'_\lambda T'_\lambda\|\Lambda\|\Delta J_\lambda T_\lambda\rangle$$
$$= (-1)^{T'_\lambda + T_\lambda + 2T_\mu + \frac{1}{2}}(-1)^{J'_\lambda - T'_\lambda + j + \frac{1}{2}}\langle J'_\lambda T'_\lambda\|\Lambda\|J_\lambda T_\lambda\rangle';$$

$$\langle\Delta'J'_\mu T'_\mu\|M\|\Delta J_\mu T_\mu\rangle$$
$$= (-1)^{J'_\mu - T_\mu + j}\langle J'_\mu T'_\mu\|M\|J_\mu T_\mu\rangle' \qquad (11)$$

where the primed reduced matrix elements satisfy

$$\langle a'b'\|\Lambda\|ab\rangle' = \langle ab\|\Lambda\|a'b'\rangle'$$
$$= \langle ab\|M\|a'b'\rangle' = \langle a'b'\|M\|ab\rangle'. \qquad (12)$$

The numerical values of these reduced matrix elements are related to those of identical nucleon cfp with $n = v$,

$$\langle J'T' = T - \tfrac{1}{2}\|M\|JT\rangle'$$
$$= (-1)^{J' + T + j}\left[\left(j + \frac{3}{2} - v\right)(v + 1)(2J' + 1)\right]^{\frac{1}{2}}$$

$$\times \langle j^v vJ; j|\}j^{v+1}v + 1J'\rangle \qquad (13)$$

with $v = j + \frac{1}{2} - 2T$. For easy reference the primed reduced matrix elements for $j = 7/2$ are given in Table III. Matrix elements of all physical operators can be related to these reduced matrix elements.

*Single Nucleon Creation Operators*

The basic reduced matrix element is obtained from Eq. (10) and standard Racah algebra:

$$\langle(J'_\lambda J'_\mu)J'(T'_\lambda T'_\mu)T'\|a^\dagger\|(J_\lambda J_\mu)J(T_\lambda T_\mu)T\rangle$$
$$= [\tfrac{1}{2}(2J + 1)(2J' + 1)(2T + 1)(2T' + 1)]^{\frac{1}{2}}$$

$$\times \left\{\delta_{J'_\mu J_\mu}\delta_{T'_\mu T_\mu}\begin{Bmatrix} J_\lambda & J_\mu & J \\ J' & j & J'_\lambda \end{Bmatrix}\begin{Bmatrix} T_\lambda & T_\mu & T \\ T' & \frac{1}{2} & T'_\lambda \end{Bmatrix}\right.$$

$$\times (-1)^{J + T + J_\mu - T_\lambda + T'_\lambda - T_\mu - \frac{1}{2}}\langle J'_\lambda T'_\lambda\|\Lambda\|J_\lambda T_\lambda\rangle'$$

$$+ \delta_{J'_\lambda J_\lambda}\delta_{T'_\lambda T_\lambda}\begin{Bmatrix} J_\lambda & J_\mu & J \\ j & J' & J'_\mu \end{Bmatrix}\begin{Bmatrix} T_\lambda & T_\mu & T \\ \frac{1}{2} & T' & T'_\mu \end{Bmatrix}$$

$$\left. \times (-1)^{J' + T' + J_\lambda + T_\lambda + J_\mu + J'_\mu - \frac{1}{2}}\langle J'_\mu T'_\mu\|M\|J_\mu T_\mu\rangle'\right\}. \qquad (14)$$

*One-Body Operators, Pair Creation Operators*

One-body operators can be expressed in terms of the basic tensors

$$[a^\dagger \times a]^{J_o T_o}_{M_o M_{T_o}}$$
$$= \sum_{m\,m_t}\langle jmj - m'|J_oM_o\rangle\langle\tfrac{1}{2}m_t\tfrac{1}{2} - m'_t|T_o M_{T_o}\rangle$$

$$\times a^\dagger_{m\,m_t}a_{m'\,m'_t}(-1)^{j-m'+\frac{1}{2}-m'_t} \qquad (15)$$

where

$$[a^\dagger \times a]^{J_o T_o}_{M_o M_{T_o}}$$
$$= -[\Lambda \times \Lambda]^{J_o T_o}_{M_o M_{T_o}} + [M \times M]^{J_o T_o}_{M_o M_{T_o}}$$
$$\text{for } J_o + T_o = \text{odd} \qquad (16)$$
$$= [\Lambda \times M]^{J_o T_o}_{M_o M_{T_o}} + [\tfrac{1}{2}(2j + 1)]^{\frac{1}{2}}\delta_{J_o,0}\delta_{T_o,0}$$
$$\text{for } J_o + T_o = \text{even}.$$

Similarly,

$$[a^\dagger \times a^\dagger]^{J_o T_o}_{M_o M_{T_o}} \qquad (17)$$

$$= \tfrac{1}{2}[\Lambda \times \Lambda]^{J_o T_o}_{M_o M_{T_o}} + \tfrac{1}{2}[M \times M]^{J_o T_o}_{M_o M_{T_o}} + [\Lambda \times M]^{J_o T_o}_{M_o M_{T_o}}$$

with $J_o + T_o = \text{odd}$ only.

For one-body operators with $J_o + T_o = \text{even}$, all matrix elements are related to the reduced matrix element

$$\langle(J'_\lambda J'_\mu)J'(T'_\lambda T'_\mu)T'\|[\Lambda \times M]^{J_o T_o}\|(J_\lambda J_\mu)J(T_\lambda T_\mu)T\rangle$$
$$= [(2J + 1)(2J' + 1)(2J_o + 1)(2T + 1)(2T' + 1)$$
$$\times (2T_o + 1)]^{\frac{1}{2}}(-1)^{J'_\lambda + J_\mu + T_\lambda - T_\mu + 2T_\mu}$$

$$\times \begin{Bmatrix} J_\lambda & j & J'_\lambda \\ J_\mu & j & J'_\mu \\ J & J_o & J' \end{Bmatrix}\begin{Bmatrix} T_\lambda & \frac{1}{2} & T'_\lambda \\ T_\mu & \frac{1}{2} & T'_\mu \\ T & T_o & T' \end{Bmatrix}$$

$$\times \langle J'_\lambda T'_\lambda\|\Lambda\|J_\lambda T_\lambda\rangle'\langle J'_\mu T'_\mu\|M\|J_\mu T_\mu\rangle'. \qquad (18)$$

The number operator, in particular, is given by

$$N_{op.} = (2j + 1) + [2(2j + 1)]^{\frac{1}{2}} [\Lambda \times M]_{00}^{00} \quad (19)$$

and has been used to check the entries in Tables I and II. Its matrix elements are given by

$$\langle (J'_\lambda J'_\mu) JM(T'_\lambda T'_\mu) TM_T | N_{op.} | (J_\lambda J_\mu) JM(T_\lambda T_\mu) TM_T \rangle$$

$$= (2j + 1) \, \delta_{J'_\lambda J_\lambda} \delta_{J'_\mu J_\mu} \delta_{T'_\lambda T_\lambda} \delta_{T'_\mu T_\mu}$$

$$+ (-1)^{j + \frac{1}{2} + J + T + J_\lambda + J'_\lambda + 2J'_\mu + 2T_\lambda - T_\mu - T'_\mu}$$

$$\times \begin{Bmatrix} J_\lambda & J_\mu & J \\ J'_\mu & J'_\lambda & j \end{Bmatrix} \begin{Bmatrix} T_\lambda & T_\mu & T \\ T'_\mu & T'_\lambda & \frac{1}{2} \end{Bmatrix}$$

$$\times \langle J'_\lambda T'_\lambda \| \Lambda \| J_\lambda T_\lambda \rangle' \, \langle J'_\mu T'_\mu \| M \| J_\mu T_\mu \rangle'. \quad (20)$$

*Specific Examples.*—Note that for all states with $n = 8$ (Examples 1 and 2 above), $T_\lambda$ and $T_\mu$ are either both all integral or both all half-integral. Hence the $[\Lambda \times M]$ operator of Eq. (19) has zero matrix elements between all components of the $n = 8$ state vectors, and the eigenvalue of $N_{op.}$ is $n = 2j + 1 = 8$ independent of the expansion coefficients $C$ and $D$. In Example 3, the $[\Lambda \times M]$-part of $N_{op.}$ makes contributions through four types of terms:

1. Matrix elements connecting the
$$|(0 \, 7/2)7/2(2 \, 3/2)5/2\rangle$$

and

$$|(7/2 \, 0)7/2(3/2 \, 2)5/2\rangle$$

pieces of the $(s)$ state vectors with $(T_\lambda T_\mu) = (2 \, 3/2)$ contribute $-(3/4)^2(-3/4) = +27/64$.

2. Matrix elements connecting the
$$|(0 \, 7/2)7/2(2 \, 3/2)5/2\rangle \text{ piece to the}$$
$$|(7/2 \, J)7/2(3/2 \, 1)5/2\rangle \text{ pieces contribute.}$$

$$(3/4) \sum_J (-[7(2J + 1)/16 \cdot 27]^{\frac{1}{2}})([7(2J + 1)/16 \cdot 3]^{\frac{1}{2}})$$

$$= -63/64.$$

3. Matrix elements connecting the
$$|(7/2 \, 0)7/2(3/2 \, 2)5/2\rangle$$

piece to the

$$|(J \, 7/2)7/2(1 \, 3/2)5/2\rangle$$

pieces contribute

$$-(3/4)\sum_J (-[7(2J + 1)/16 \cdot 27]^{\frac{1}{2}})$$

$$\times (-[7(2J + 1)/16 \cdot 3]^{\frac{1}{2}}) = -63/64.$$

4. Matrix elements connecting the
$$|(J \, 7/2)7/2(1 \, 3/2)5/2\rangle$$

and

$$|(7/2 \, J)7/2(3/2 \, 1)5/2\rangle$$

pieces of the $(s)$ states with $(T_\lambda T_\mu) = (1 \, 3/2)$ contribute $+35/64$, so that

$$n = 8 + (27 - 63 - 63 + 35)/64 = 7.$$

For the state with $n = 9$, and the same $(vt)TJ$, the replacement of $(s)$ vectors with $(a)$ vectors changes the signs of contributions 1-4, so that

$$n = 8 + (-27 + 63 + 63 - 35)/64 = 9.$$

Matrix elements of the operators $[\Lambda \times \Lambda]$ and $[M \times M]$, with $J_o + T_o =$ odd, are again reduced to double-barred matrix elements by standard Racah algebra. The double-barred matrix element of $[M \times M]$ is independent of $\Delta$ (independent of whether $T_\lambda + T_\mu =$ integer or half-integer) and is given by:

$$\langle \Delta J'_\mu T'_\mu \| [M \times M]^{J_o T_o} \| \Delta J_\mu T_\mu \rangle = (-1)^{J_o + T_o + J_\mu + T'_\mu}$$

$$\times \sum_{J''_\mu T''_\mu} (-1)^{J''_\mu + T''_\mu} [2J_o + 1)(2T_o + 1)]^{\frac{1}{2}}$$

$$\times \begin{Bmatrix} J_\mu & j & J''_\mu \\ j & J'_\mu & J_o \end{Bmatrix} \begin{Bmatrix} T_\mu & \frac{1}{2} & T''_\mu \\ \frac{1}{2} & T'_\mu & T_o \end{Bmatrix}$$

$$\times \langle J''_\mu T''_\mu \| M \| J'_\mu T'_\mu \rangle' \, \langle J''_\mu T''_\mu \| M \| J_\mu T_\mu \rangle'. \quad (21)$$

These reduced matrix elements for $j = 7/2$ are given in Table IV. Only matrix elements with $J' \leq J$, $T' \leq T$ are tabulated since matrix elements with $J' > J$, $T' > T$ can be obtained from these by the symmetry property

$$\langle J'T' \| [M \times M]^{J_o T_o} \| JT \rangle$$

$$= (-1)^{J - J' + T - T} \langle JT \| [M \times M]^{J_o T_o} \| J'T' \rangle. \quad (22)$$

The reduced matrix elements

$$\langle \Delta J'_\lambda T'_\lambda \| [\Lambda \times \Lambda]^{J_o T_o} \| \Delta J_\lambda T_\lambda \rangle$$

gain an additional minus sign through their $\Delta$-dependence:

$$\langle \Delta a'b' \| [\Lambda \times \Lambda]^{J_o T_o} \| \Delta ab \rangle$$

$$= -\langle a'b' \| [M \times M]^{J_o T_o} \| ab \rangle \quad (23)$$

for both $T_\lambda + T_\mu =$ integer or half-integer (note that $\Delta'$ must $= \Delta$).

*Two-Body Operators*

Finally, the most general charge independent 2-body interaction acting within the $j$-shell can be expressed in terms of the 2-particle matrix elements

$$V_{JT} = \langle j^2 JM \, TM_T | V | j^2 JM \, TM_T \rangle \quad (24)$$

by

$$H_{2\text{-body}} = \left[\frac{1}{8} + \frac{(n - 2j - 1)}{2(2j + 1)}\right]V + \frac{1}{8}\sum_{J_oT_o} V_{J_oT_o}$$

$$\times \{([\Lambda \times \Lambda]^{J_oT_o}:[\Lambda \times \Lambda]^{J_oT_o})$$

$$+ ([M \times M]^{J_oT_o}:[M \times M]^{J_oT_o})\}$$

$$+ \frac{1}{8}\sum_{J_oT_o} U_{J_oT_o} ([\Lambda \times \Lambda]^{J_oT_o}:[M \times M]^{J_oT_o}) \quad (25)$$

where the double-dot product is defined by

$$([\Lambda \times \Lambda]^{J_oT_o}:[\Lambda \times \Lambda]^{J_oT_o}) = -[(2J_o + 1)(2T_o + 1)]^{\frac{1}{2}}$$

$$\times [[\Lambda \times \Lambda]^{J_oT_o} \times [\Lambda \times \Lambda]^{J_oT_o}]^{00}_{00} \quad (26)$$

and where

$$V = \sum_{JT} (2J + 1)(2T + 1) V_{JT} \quad (27)$$

$$U_{J_oT_o} = \sum_{JT} V_{JT}\left(2\delta_{JJ_o}\delta_{TT_o} + 4(2J + 1)(2T + 1)\right.$$

$$\left.\times \begin{Bmatrix} j & j & J \\ j & j & J_o \end{Bmatrix}\begin{Bmatrix} \frac{1}{2} & \frac{1}{2} & T \\ \frac{1}{2} & \frac{1}{2} & T_o \end{Bmatrix}\right). \quad (28)$$

The matrix elements of the operators in Eq. (25) are given by:

$$\langle(J_\lambda J_\mu)JM(T_\lambda T_\mu)TM_T|([M \times M]^{J_oT_o}:[M \times M]^{J_oT_o})|$$

$$\times (J_\lambda J_\mu)JM(T_\lambda T_\mu)TM_T\rangle$$

$$= \sum_{J''_\mu T''_\mu}\frac{\langle J''_\mu T''_\mu\|[M \times M]^{J_oT_o}\|J_\mu T_\mu\rangle^2}{(2J_\mu + 1)(2T_\mu + 1)} \quad (29)$$

(similarly for the companion $\Lambda$ operator). Note that these matrix elements must be diagonal in *all* $\lambda$ and $\mu$ quantum numbers. For convenience, the sums of Eq. (29) are tabulated for each $J_\mu T_\mu$ $(J_oT_o)$ in Table V.

$$\langle(J'_\lambda J'_\mu)JM(T'_\lambda T'_\mu)TM_T|([\Lambda \times \Lambda]^{J_oT_o}:[M \times M]^{J_oT_o})$$

$$\times |(J_\lambda J_\mu)JM(T_\lambda T_\mu)TM_T\rangle$$

$$= (-1)^{J+J_\lambda+J'_\mu+T+T_\lambda+T'_\mu}\begin{Bmatrix} J_\lambda & J_\mu & J \\ J'_\mu & J'_\lambda & J_o \end{Bmatrix}\begin{Bmatrix} T_\lambda & T_\mu & T \\ T'_\mu & T'_\lambda & T_o \end{Bmatrix}$$

$$\times \langle\Delta J'_\lambda T'_\lambda\|[\Lambda \times \Lambda]^{J_oT_o}\|\Delta J_\lambda T_\lambda\rangle\langle\Delta J'_\mu T'_\mu\|$$

$$\times [M \times M]^{J_oT_o}\|\Delta J_\mu T_\mu\rangle. \quad (30)$$

As a further test of the tabulations sample calculations of a few simple 2-body interactions with known eigenvalues have been carried out. These interactions are listed below

| Interaction | Eigenvalue | $V_{J_oT_o}$ | $U_{J_oT_o}$ |
|---|---|---|---|
| $\sum_{i<k} 1$ | $\frac{1}{2}n(n - 1)$ | 1 | 4 |
| $H_{\text{pairing}}$ | $\frac{1}{4}(n - v)(4j + 8 - n - v)$ $+ t(t + 1) - T(T + 1)$ | $\delta_{J_o0}\delta_{T_o1}(2j + 1)$ | $\delta_{J_o0}\delta_{T_o1}(4j + 2)$ $+ 6(-1)^{J_o+1}/(2T_o + 1)$ |
| $\sum_{i<k} \mathbf{t}_i \cdot \mathbf{t}_k$ | $\frac{1}{2}[T(T + 1) - \frac{3}{4}n]$ | $+\frac{1}{4}\quad T_o = 1$ $-\frac{3}{4}\quad T_o = 0$ | $-(2j + 1)\delta_{J_o0}\delta_{T_o1}$ |
| $\sum_{i<k} \mathbf{j}_i \cdot \mathbf{j}_k$ | $\frac{1}{2}[J(J + 1) - nj(j + 1)]$ | $[\frac{1}{2}J_o(J_o + 1) - j(j + 1)]$ $= (-1)^{J_o+1}j(j + 1)(2j + 1)\begin{Bmatrix} j & j & J_o \\ j & j & 1 \end{Bmatrix}$ | $-\frac{4}{3}j(j + 1)(2j + 1)\delta_{J_o1}\delta_{T_o0}$ |

*Sample Calculation.*—For the $n = 8$ state with $(vt) = (00)$, $T = 0$, $J = 0$ (Example 1), the eigenvalues for the first three interactions above are found to be [with the aid of Tables IV and V and Eqs. (29) and (30)]

$$E = \frac{1}{8}V + \frac{1}{4}(6V_{01} + 54V_{e1})(.492188)$$

$$+ \frac{1}{4}(2V_{01} + 42V_{e1} + 16V_{00})(.273438)$$

$$+ \frac{1}{4}(36V_{e1} + 24V_{00})(.234375) + .369141U_{01}$$

$$- 1.230469U_{e1} + [.068359U_{01} + .683595U_{e1}$$

$$+ .546876U_{00}] + .703119U_{00} - 1.640620U_{e1},$$

where $V_{e1} = V_{J1}$ for any even-$J$ $(J \neq 0)$, $V_{00} = V_{J0}$ for any odd-$J$ (similarly for $U_{e1}$ and $U_{00}$)[*]; and where terms 2, 3, and 4 arise from matrix elements of $([\Lambda \times \Lambda]^{J_oT_o}: [\Lambda \times \Lambda]^{J_oT_o})$ and $([M \times M]^{J_oT_o}:[M \times M]^{J_oT_o})$.

The $U_{JT}$-dependent terms are grouped as follows:

The first term arises from matrix elements connecting the $|(00)0(22)0\rangle$ term to itself,

[*]The notation $V_{e1}$, $V_{00}$, . . . , is convenient for the special test interactions above but has no general significance.

The second term from matrix elements connecting $|(00)0(22)0\rangle$ to $|(JJ)0(11)0\rangle$,

The third term from matrix elements connecting $|(JJ)0(11)0\rangle$ to $|(J'J')0(11)0\rangle$,

The fourth term from matrix elements connecting $|(JJ)0(00)0\rangle$ to $|(J'J')0(00)0\rangle$,

The fifth term from matrix elements connecting $|(JJ)0(11)0\rangle$ to $|(J'J')0(00)0\rangle$.

The sum gives

$$E = 0.125V + 0.875V_{01} + 11.625V_{e1} + 2.500V_{00}$$
$$+ 0.4375U_{01} - 2.1875U_{e1} + 1.250U_{o0},$$

so that $E = 28, 28, -3$ for the 2-body operators $\Sigma 1$, $H_{\text{pairing}}$, $\Sigma t_i \cdot t_k$, respectively.

For the matrix elements of the operator $\Sigma \mathbf{j}_i \cdot \mathbf{j}_k$ in the state of Example 1, ($n = 8$, ($vt$) = (00), $T = 0$, $J = 0$),

$$E = \tfrac{1}{8}(-126) + \tfrac{1}{4}$$
$$\times \{.492188(-189) + .050637(-165 - 24)$$
$$+ .091146(-109 - 80) + .131655(-21 - 168)$$
$$+ .027902(-165 - 24) + .050223(-109 - 80)$$
$$+ .061384(-69 - 120) + .094866(+99 - 288)\},$$

where the decimal numbers are the squares of the expansion coefficients of the state vector, and the first numbers in ( ) give the contributions of the

$$\Sigma V_{J_oT_o}\{([\Lambda \times \Lambda]^{J_oT_o}:[\Lambda \times \Lambda]^{J_oT_o})$$
$$+ ([M \times M]^{J_oT_o}:[M \times M]^{J_oT_o})\}$$

term of $H$, while the second numbers give the contributions of the $U_{10}$ term. The final result gives $E = -63$.

Although these test interactions are extremely simple, the degree of complexity of the calculation is no greater for a matrix element of the most general

2-body interaction $V_{JT}$. For states of low $T$ and $n$ near the half-filled shell, in particular, the new technique for the calculation of nuclear matrix elements has a great advantage over the conventional cfp technique, since the cfp expansion becomes extremely cumbersome for such values of $n$ and $T$.

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## EXPLANATION OF TABLES

### Definitions of Symbols

| | |
|---|---|
| C | The transformation coefficients $C^{(vt)T}_{H_1\beta;T_\lambda T_\mu}$ defined by Eq. (8) and listed in Table I |
| D | The transformation coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$ defined by Eq. (8) and listed in Table II |
| $H_1$ | $H_1 = \frac{1}{2}(n - 2j - 1) = \frac{1}{2}(n - 8)$, $n$ = particle number |
| J | Total angular momentum |
| $J_\lambda,J_\mu$ | The quasiparticle quantum numbers defined by Eqs. (2) and (4) |
| T | Total isospin |
| t | Reduced isospin |
| $T_\lambda,T_\mu$ | The quasiparticle quantum numbers defined by Eqs. (3) and (4) |
| v | Seniority |
| $\alpha$ | The label which distinguishes multiple occurrences of states with the same $J$ in the representation $(vt)$ |
| $\beta$ | The label which distinguishes multiple occurrences of states with the same $n$, $T$ in the representation $(vt)$ |
| $\Lambda,M$ | Double spherical tensor operators for the $\lambda$-, $\mu$-spaces defined by Eqs. (9) and (10) |
| $\langle\|\Lambda\|\rangle'$ | The symmetrical *primed* reduced matrix elements defined by Eq. (11) and listed in Table III |
| $\langle\|[M \times M]\|\rangle$ | The reduced matrix elements $\langle J'_\mu T'_\mu\|[M \times M]^{J_o T_o}\|J_\mu T_\mu\rangle$ defined by Eqs. (21)–(23) and listed in Table IV |

| | |
|---|---|
| JL  TL | $J_L T_L \equiv J'_\mu T'_\mu$ |
| JR  TR | $J_R T_R \equiv J_\mu T_\mu$ |
| JOTO | $[M \times M]^{J_o T_o} \equiv (M * M)JOTO$ |

## TABLE I. The Transformation Coefficients $C^{(vt)T}_{H_1\beta; T_\lambda T_\mu}$

**$v = 0 \quad t = 0$**

| T | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | C | T | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | -4 | 1 | 0 | 0 | .4050463 | 1 | -3 | 1 | 2 | 2 | -.2795085 |
|   |   |   | 1/2 | 1/2 | .6123724 | 1 | -1 | 1 | 1/2 | 1/2 | .5590170 |
|   |   |   | 1 | 1 | .5625000 |   |   |   | 1 | 1 | .2795085 |
|   |   |   | 3/2 | 3/2 | .3535534 |   |   |   | 3/2 | 3/2 | -.4330127 |
|   |   |   | 2 | 2 | .1397542 |   |   |   | 2 | 2 | -.6495191 |
| 0 | -2 | 1 | 0 | 0 | -.4677072 | 1 | 1 | 1 | 1/2 | 1/2 | -.5590170 |
|   |   |   | 1/2 | 1/2 | -.3535534 |   |   |   | 1 | 1 | .2795085 |
|   |   |   | 1 | 1 | .2165064 |   |   |   | 3/2 | 3/2 | .4330127 |
|   |   |   | 3/2 | 3/2 | .6123724 |   |   |   | 2 | 2 | -.6495191 |
|   |   |   | 2 | 2 | .4841229 | 1 | 3 | 1 | 1/2 | 1/2 | .4330127 |
| 0 | 0 | 1 | 0 | 0 | .4841229 |   |   |   | 1 | 1 | -.6495191 |
|   |   |   | 1/2 | 1/2 | .0000000 |   |   |   | 3/2 | 3/2 | .5590170 |
|   |   |   | 1 | 1 | -.5229125 |   |   |   | 2 | 2 | -.2795085 |
|   |   |   | 3/2 | 3/2 | .0000000 | 2 | -2 | 1 | 1 | 1 | .5303301 |
|   |   |   | 2 | 2 | .7015608 |   |   |   | 3/2 | 3/2 | .7071068 |
| 0 | 2 | 1 | 0 | 0 | -.4677072 |   |   |   | 2 | 2 | .4677072 |
|   |   |   | 1/2 | 1/2 | .3535534 | 2 | 0 | 1 | 1 | 1 | -.6614378 |
|   |   |   | 1 | 1 | .2165064 |   |   |   | 3/2 | 3/2 | .0000000 |
|   |   |   | 3/2 | 3/2 | -.6123724 |   |   |   | 2 | 2 | .7500000 |
|   |   |   | 2 | 2 | .4841229 | 2 | 2 | 1 | 1 | 1 | .5303301 |
| 0 | 4 | 1 | 0 | 0 | .4050463 |   |   |   | 3/2 | 3/2 | -.7071068 |
|   |   |   | 1/2 | 1/2 | -.6123724 |   |   |   | 2 | 2 | .4677072 |
|   |   |   | 1 | 1 | .5625000 | 3 | -1 | 1 | 3/2 | 3/2 | -.7071068 |
|   |   |   | 3/2 | 3/2 | -.3535534 |   |   |   | 2 | 2 | -.7071068 |
|   |   |   | 2 | 2 | .1397542 | 3 | 1 | 1 | 3/2 | 3/2 | .7071068 |
| 1 | -3 | 1 | 1/2 | 1/2 | -.4330127 |   |   |   | 2 | 2 | -.7071068 |
|   |   |   | 1 | 1 | -.6495191 | 4 | 0 | 1 | 2 | 2 | 1.000000 |
|   |   |   | 3/2 | 3/2 | -.5590170 |   |   |   |   |   |   |

**$v = 1 \quad t = 1/2$**

| T | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | C | T | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | -7/2 | 1 | 0 | 1/2 | -.5728220 | 1/2 | 7/2 | 1 | 1 | 3/2 | -.4592793 |
|   |   |   | 1 | 1/2 | .6495191 |   |   |   | 2 | 3/2 | -.1976424 |
|   |   |   | 1 | 3/2 | .4592793 | 3/2 | -5/2 | 1 | 1 | 1/2 | -.6123724 |
|   |   |   | 2 | 3/2 | .1976424 |   |   |   | 1 | 3/2 | -.6846532 |
| 1/2 | -5/2 | 1 | 0 | 1/2 | -.3307189 |   |   |   | 2 | 3/2 | -.3952847 |
|   |   |   | 1 | 1/2 | -.6250000 | 3/2 | -3/2 | 1 | 1 | 1/2 | .4564355 |
|   |   |   | 1 | 3/2 | .6187184 |   |   |   | 1 | 3/2 | -.7144345 |
|   |   |   | 2 | 3/2 | -.3423266 |   |   |   | 2 | 3/2 | .5303301 |
| 1/2 | -3/2 | 1 | 0 | 1/2 | .5728220 | 3/2 | -1/2 | 1 | 1 | 1/2 | .6454972 |
|   |   |   | 1 | 1/2 | -.0721688 |   |   |   | 1 | 3/2 | -.1443376 |
|   |   |   | 1 | 3/2 | .5613414 |   |   |   | 2 | 3/2 | -.7500000 |
|   |   |   | 2 | 3/2 | .5929271 | 3/2 | 1/2 | 1 | 1 | 1/2 | -.6454972 |
| 1/2 | -1/2 | 1 | 0 | 1/2 | .4841229 |   |   |   | 1 | 3/2 | .1443376 |
|   |   |   | 1 | 1/2 | .4269563 |   |   |   | 2 | 3/2 | .7500000 |
|   |   |   | 1 | 3/2 | .3019037 | 3/2 | 3/2 | 1 | 1 | 1/2 | -.4564355 |
|   |   |   | 2 | 3/2 | -.7015608 |   |   |   | 1 | 3/2 | .7144345 |
| 1/2 | 1/2 | 1 | 0 | 1/2 | -.4841229 |   |   |   | 2 | 3/2 | -.5303301 |
|   |   |   | 1 | 1/2 | -.4269563 | 3/2 | 5/2 | 1 | 1 | 1/2 | .6123724 |
|   |   |   | 1 | 3/2 | -.3019037 |   |   |   | 1 | 3/2 | .6846532 |
|   |   |   | 2 | 3/2 | .7015608 |   |   |   | 2 | 3/2 | .3952847 |
| 1/2 | 3/2 | 1 | 0 | 1/2 | -.5728220 | 5/2 | -3/2 | 1 | 1 | 3/2 | .7500000 |
|   |   |   | 1 | 1/2 | .0721688 |   |   |   | 2 | 3/2 | .6614378 |
|   |   |   | 1 | 3/2 | -.5613414 | 5/2 | -1/2 | 1 | 1 | 3/2 | .6614378 |
|   |   |   | 2 | 3/2 | -.5929271 |   |   |   | 2 | 3/2 | -.7500000 |
| 1/2 | 5/2 | 1 | 0 | 1/2 | .3307189 | 5/2 | 1/2 | 1 | 1 | 3/2 | -.6614378 |
|   |   |   | 1 | 1/2 | .6250000 |   |   |   | 2 | 3/2 | .7500000 |
|   |   |   | 1 | 3/2 | -.6187184 | 5/2 | 3/2 | 1 | 1 | 3/2 | -.7500000 |
|   |   |   | 2 | 3/2 | .3423266 |   |   |   | 2 | 3/2 | -.6614378 |
| 1/2 | 7/2 | 1 | 0 | 1/2 | .5728220 | 7/2 | -1/2 | 1 | 2 | 3/2 | -1.000000 |
|   |   |   | 1 | 1/2 | -.6495191 |   |   |   |   |   |   |

**$v = 2 \quad t = 0$**

| T | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | C | T | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | -3 | 1 | 0 | 0 | .4677072 | 0 | -3 | 1 | 3/2 | 3/2 | -.2500000 |
|   |   |   | 1/2 | 1/2 | -.6614378 | 0 | -1 | 1 | 0 | 0 | -.5303301 |
|   |   |   | 1 | 1 | .5303301 |   |   |   | 1/2 | 1/2 | .2500000 |

See page 321 for Explanation of Tables

TABLE I. The Transformation Coefficients $C^{(vt)T}_{H_1\beta;\,T_\lambda T_\mu}$

**v = 2    t = 0**

| T | H₁ | β | T_λ | T_μ | C | | T | H₁ | β | T_λ | T_μ | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | -1 | 1 | 1 | 1 | .4677072 | | 1 | -2 | 1 | 3/2 | 3/2 | .4564355 |
| | | | 3/2 | 3/2 | -.6614378 | | 1 | 0 | 1 | 1/2 | 1/2 | -.6454972 |
| 0 | 1 | 1 | 0 | 0 | .5303301 | | | | | 1 | 1 | .0000000 |
| | | | 1/2 | 1/2 | .2500000 | | | | | 3/2 | 3/2 | .7637626 |
| | | | 1 | 1 | -.4677072 | | 1 | 2 | 1 | 1/2 | 1/2 | .5400617 |
| | | | 3/2 | 3/2 | -.6614378 | | | | | 1 | 1 | .7071068 |
| 0 | 3 | 1 | 0 | 0 | -.4677072 | | | | | 3/2 | 3/2 | .4564355 |
| | | | 1/2 | 1/2 | -.6614378 | | 2 | -1 | 1 | 1 | 1 | .7071068 |
| | | | 1 | 1 | -.5303301 | | | | | 3/2 | 3/2 | -.7071068 |
| | | | 3/2 | 3/2 | -.2500000 | | 2 | 1 | 1 | 1 | 1 | -.7071068 |
| 1 | -2 | 1 | 1/2 | 1/2 | .5400617 | | | | | 3/2 | 3/2 | -.7071068 |
| | | | 1 | 1 | -.7071068 | | 3 | 0 | 1 | 3/2 | 3/2 | 1.000000 |

**v = 2    t = 1**

| T | H₁ | β | T_λ | T_μ | C | | T | H₁ | β | T_λ | T_μ | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | -2 | 1 | 1/2 | 1/2 | .5400617 | | 1 | 1 | 1 | 3/2 | 3/2 | -.6575959 |
| | | | 1 | 1 | -.7071068 | | | | | 1 | 0 | .3970613 |
| | | | 3/2 | 3/2 | .4564355 | | | | | 1 | 1 | -.5812382 |
| 0 | 0 | 1 | 1/2 | 1/2 | -.6454972 | | | | | 2 | 1 | -.0671156 |
| | | | 1 | 1 | .0000000 | | 1 | 2 | 1 | 1/2 | 1/2 | .0000000 |
| | | | 3/2 | 3/2 | .7637626 | | | | | 3/2 | 1/2 | .7071068 |
| 0 | 2 | 1 | 1/2 | 1/2 | .5400617 | | | | | 3/2 | 3/2 | .0000000 |
| | | | 1 | 1 | .7071068 | | | | | 1 | 0 | -.5400617 |
| | | | 3/2 | 3/2 | .4564355 | | | | | 1 | 1 | .0000000 |
| 1 | -3 | 1 | 1/2 | 1/2 | -.4930066 | | | | | 2 | 1 | .4564355 |
| | | | 3/2 | 1/2 | .4714045 | | 1 | 3 | 1 | 1/2 | 1/2 | .4930066 |
| | | | 3/2 | 3/2 | -.1863390 | | | | | 3/2 | 1/2 | -.4714045 |
| | | | 1 | 0 | .5400617 | | | | | 3/2 | 3/2 | .1863390 |
| | | | 1 | 1 | .3952847 | | | | | 1 | 0 | .5400617 |
| | | | 2 | 1 | -.2282177 | | | | | 1 | 1 | .3952847 |
| 1 | -2 | 1 | 1/2 | 1/2 | .0000000 | | | | | 2 | 1 | -.2282177 |
| | | | 3/2 | 1/2 | -.7071068 | | 2 | -2 | 1 | 3/2 | 1/2 | -.5773503 |
| | | | 3/2 | 3/2 | .0000000 | | | | | 3/2 | 3/2 | .4082483 |
| | | | 1 | 0 | -.5400617 | | | | | 1 | 1 | -.5590170 |
| | | | 1 | 1 | .0000000 | | | | | 2 | 1 | .4330127 |
| | | | 2 | 1 | .4564355 | | 2 | -1 | 1 | 3/2 | 1/2 | .7071068 |
| 1 | -1 | 1 | 1/2 | 1/2 | .5068969 | | | | | 3/2 | 3/2 | .0000000 |
| | | | 3/2 | 1/2 | .4584869 | | | | | 1 | 1 | .0000000 |
| | | | 3/2 | 3/2 | -.1812328 | | | | | 2 | 1 | -.7071068 |
| | | | 1 | 0 | -.2251126 | | 2 | 0 | 1 | 3/2 | 1/2 | .5773503 |
| | | | 1 | 1 | -.0768906 | | | | | 3/2 | 3/2 | .8164966 |
| | | | 2 | 1 | -.6658920 | | | | | 1 | 1 | .0000000 |
| | | | 1/2 | 1/2 | .0000000 | | | | | 2 | 1 | .0000000 |
| | | | 3/2 | 1/2 | -.2599376 | | | | | 3/2 | 1/2 | .0000000 |
| | | | 3/2 | 3/2 | -.6575959 | | | | | 3/2 | 3/2 | .0000000 |
| | | | 1 | 0 | -.3970613 | | | | | 1 | 1 | .6123724 |
| | | | 1 | 1 | .5812382 | | | | | 2 | 1 | .7905694 |
| | | | 2 | 1 | .0671156 | | 2 | 1 | 1 | 3/2 | 1/2 | -.7071068 |
| 1 | 0 | 1 | 1/2 | 1/2 | .0000000 | | | | | 3/2 | 1/2 | .0000000 |
| | | | 3/2 | 1/2 | .0000000 | | | | | 1 | 1 | .0000000 |
| | | | 3/2 | 3/2 | .0000000 | | | | | 2 | 1 | -.7071068 |
| | | | 1 | 0 | .6454972 | | 2 | 2 | 1 | 3/2 | 1/2 | .5773503 |
| | | | 1 | 1 | .0000000 | | | | | 3/2 | 3/2 | -.4082483 |
| | | | 2 | 1 | .7637626 | | | | | 1 | 1 | -.5590170 |
| 1 | 1 | 1 | 1/2 | 1/2 | -.5068969 | | | | | 2 | 1 | .4330127 |
| | | | 3/2 | 1/2 | -.4584869 | | 3 | -1 | 1 | 3/2 | 3/2 | -.7071068 |
| | | | 3/2 | 3/2 | .1812328 | | | | | 2 | 1 | -.7071068 |
| | | | 1 | 0 | -.2251126 | | 3 | 0 | 1 | 3/2 | 3/2 | .0000000 |
| | | | 1 | 1 | -.0768906 | | | | | 2 | 1 | 1.000000 |
| | | | 2 | 1 | -.6658920 | | 3 | 1 | 1 | 3/2 | 3/2 | .7071068 |
| | | | 1/2 | 1/2 | .0000000 | | | | | 2 | 1 | -.7071068 |
| | | | 3/2 | 1/2 | -.2599376 | | | | | | | |

**v = 3    t = 1/2**

| T | H₁ | β | T_λ | T_μ | C | | T | H₁ | β | T_λ | T_μ | C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | -5/2 | 1 | 0 | 1/2 | .6614378 | | 1/2 | -5/2 | 1 | 1 | 3/2 | .3535534 |
| | | | 1 | 1/2 | -.6614378 | | 1/2 | -3/2 | 1 | 0 | 1/2 | .4330127 |

See page 321 for Explanation of Tables

## TABLE I. The Transformation Coefficients $C^{(vt)T}_{H_1\beta;\,T_\lambda T_\mu}$

**$v = 3$    $t = 1/2$**

| T | $H_1$ | $\beta$ | $T_+$ | $T_\ell$ | C | T | $H_1$ | $\beta$ | $T_3$ | $T_\ell$ | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | -3/2 | 1 | 1 | 1/2 | .7216878 | 1/2 | 5/2 | 1 | 1 | 1/2 | -.6614378 |
|  |  |  | 1 | 3/2 | .5400617 |  |  |  | 1 | 3/2 | .3535534 |
| 1/2 | -1/2 | 1 | 0 | 1/2 | -.6123724 | 3/2 | -3/2 | 1 | 1 | 1/2 | .7637626 |
|  |  |  | 1 | 1/2 | -.2041241 |  |  |  | 1 | 3/2 | -.6454972 |
|  |  |  | 1 | 3/2 | .7637626 | 3/2 | -1/2 | 1 | 1 | 1/2 | -.6454972 |
| 1/2 | 1/2 | 1 | 0 | 1/2 | -.6123724 |  |  |  | 1 | 3/2 | -.7637626 |
|  |  |  | 1 | 1/2 | -.2041241 | 3/2 | 1/2 | 1 | 1 | 1/2 | -.6454972 |
|  |  |  | 1 | 3/2 | .7637626 |  |  |  | 1 | 3/2 | -.7637626 |
| 1/2 | 3/2 | 1 | 0 | 1/2 | .4330127 | 3/2 | 3/2 | 1 | 1 | 1/2 | .7637626 |
|  |  |  | 1 | 1/2 | .7216878 |  |  |  | 1 | 3/2 | -.6454972 |
|  |  |  | 1 | 3/2 | .5400617 | 5/2 | -1/2 | 1 | 1 | 3/2 | 1.000000 |
| 1/2 | 5/2 | 1 | 0 | 1/2 | .6614378 | 5/2 | 1/2 | 1 | 1 | 3/2 | 1.000000 |

**$v = 3$    $t = 3/2$**

| T | $H_1$ | $\beta$ | $T_+$ | $T_\ell$ | C | T | $H_1$ | $\beta$ | $T_3$ | $T_\ell$ | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | -3/2 | 1 | 1 | 1/2 | .7637626 | 3/2 | 1/2 | 1 | 0 | 3/2 | .3393104 |
|  |  |  | 1 | 3/2 | -.6454972 |  |  |  | 1 | 1/2 | -.5364969 |
| 1/2 | -1/2 | 1 | 1 | 1/2 | -.6454972 |  |  |  | 1 | 3/2 | -.0573539 |
|  |  |  | 1 | 3/2 | -.7637626 |  |  |  | 2 | 1/2 | -.7705518 |
| 1/2 | 1/2 | 1 | 1 | 1/2 | -.6454972 |  |  |  | 0 | 3/2 | .4442617 |
|  |  |  | 1 | 3/2 | -.7637626 |  |  |  | 1 | 1/2 | .1873172 |
| 1/2 | 3/2 | 1 | 1 | 1/2 | .7637626 |  |  |  | 1 | 3/2 | .8760958 |
|  |  |  | 1 | 3/2 | -.6454972 |  |  |  | 2 | 1/2 | .0000000 |
| 3/2 | -5/2 | 1 | 0 | 3/2 | -.4677072 | 3/2 | 3/2 | 1 | 0 | 3/2 | .6846532 |
|  |  |  | 1 | 1/2 | -.7395100 |  |  |  | 1 | 1/2 | -.3608439 |
|  |  |  | 1 | 3/2 | .3952847 |  |  |  | 1 | 3/2 | -.2700309 |
|  |  |  | 2 | 1/2 | .2795085 |  |  |  | 2 | 1/2 | .5728220 |
| 3/2 | -3/2 | 1 | 0 | 3/2 | -.6846532 | 3/2 | 5/2 | 1 | 0 | 3/2 | .4677072 |
|  |  |  | 1 | 1/2 | .3608439 |  |  |  | 1 | 1/2 | .7395100 |
|  |  |  | 1 | 3/2 | .2700309 |  |  |  | 1 | 3/2 | -.3952847 |
|  |  |  | 2 | 1/2 | -.5728220 |  |  |  | 2 | 1/2 | -.2795085 |
| 3/2 | -1/2 | 1 | 0 | 3/2 | -.3393104 | 5/2 | -3/2 | 1 | 1 | 3/2 | -.8660254 |
|  |  |  | 1 | 1/2 | .5364969 |  |  |  | 2 | 1/2 | -.5000000 |
|  |  |  | 1 | 3/2 | .0573539 | 5/2 | -1/2 | 1 | 1 | 3/2 | -.5000000 |
|  |  |  | 2 | 1/2 | .7705518 |  |  |  | 2 | 1/2 | .8660254 |
|  |  |  | 0 | 3/2 | .4442617 | 5/2 | 1/2 | 1 | 1 | 3/2 | .5000000 |
|  |  |  | 1 | 1/2 | .1873172 |  |  |  | 2 | 1/2 | -.8660254 |
|  |  |  | 1 | 3/2 | .8760958 | 5/2 | 3/2 | 1 | 1 | 3/2 | .8660254 |
|  |  |  | 2 | 1/2 | .0000000 |  |  |  | 2 | 1/2 | .5000000 |

**$v = 4$    $t = 0$**

| T | $H_1$ | $\beta$ | $T_+$ | $T_\ell$ | C | T | $H_1$ | $\beta$ | $T_3$ | $T_\ell$ | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | -2 | 1 | 0 | 0 | .5590170 | 0 | 2 | 1 | 1/2 | 1/2 | .7071068 |
|  |  |  | 1/2 | 1/2 | -.7071068 |  |  |  | 1 | 1 | .4330127 |
|  |  |  | 1 | 1 | .4330127 | 1 | -1 | 1 | 1/2 | 1/2 | .7071068 |
| 0 | 0 | 1 | 0 | 0 | -.6123724 |  |  |  | 1 | 1 | -.7071068 |
|  |  |  | 1/2 | 1/2 | .0000000 | 1 | 1 | 1 | 1/2 | 1/2 | -.7071068 |
|  |  |  | 1 | 1 | .7905694 |  |  |  | 1 | 1 | -.7071068 |
| 0 | 2 | 1 | 0 | 0 | .5590170 | 2 | 0 | 1 | 1 | 1 | 1.000000 |

**$v = 4$    $t = 1$**

| T | $H_1$ | $\beta$ | $T_+$ | $T_\ell$ | C | T | $H_1$ | $\beta$ | $T_3$ | $T_\ell$ | C |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | -1 | 1 | 1/2 | 1/2 | -.7071068 | 1 | 0 | 1 | 1 | 1 | .0000000 |
|  |  |  | 1 | 1 | .7071068 |  |  |  | 1/2 | 1/2 | .0000000 |
| 0 | 1 | 1 | 1/2 | 1/2 | .7071068 |  |  |  | 3/2 | 1/2 | .0000000 |
|  |  |  | 1 | 1 | .7071068 |  |  |  | 1 | 0 | .5000000 |
| 1 | -2 | 1 | 1/2 | 1/2 | .5773503 |  |  |  | 1 | 1 | .8660254 |
|  |  |  | 3/2 | 1/2 | .4082483 | 1 | 1 | 1 | 1/2 | 1/2 | .0000000 |
|  |  |  | 1 | 0 | -.6123724 |  |  |  | 3/2 | 1/2 | -.7071068 |
|  |  |  | 1 | 1 | -.3535534 |  |  |  | 1 | 0 | -.7071068 |
| 1 | -1 | 1 | 1/2 | 1/2 | .0000000 |  |  |  | 1 | 1 | .0000000 |
|  |  |  | 3/2 | 1/2 | -.7071068 | 1 | 2 | 1 | 1/2 | 1/2 | .5773503 |
|  |  |  | 1 | 0 | .7071068 |  |  |  | 3/2 | 1/2 | .4082483 |
|  |  |  | 1 | 1 | .0000000 |  |  |  | 1 | 0 | .6123724 |
| 1 | 0 | 1 | 1/2 | 1/2 | -.5773503 |  |  |  | 1 | 1 | .3535534 |
|  |  |  | 3/2 | 1/2 | .8164966 | 2 | -1 | 1 | 3/2 | 1/2 | -.7071068 |
|  |  |  | 1 | 0 | .0000000 |  |  |  | 1 | 1 | .7071068 |

See page 321 for Explanation of Tables

## TABLE I. The Transformation Coefficients $C^{(vt)T}_{H_1\beta;\,T_\lambda T_\mu}$

**$v = 4$  $t = 1$**

| $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ | $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 0 | 1 | 3/2 | 1/2 | 1.000000 | 2 | 1 | 1 | 3/2 | 1/2 | -.7071068 |
|  |  |  | 1 | 1 | .0000000 |  |  |  | 1 | 1 | -.7071068 |

**$v = 4$  $t = 2$**

| $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ | $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 1 | 1 | 1 | 1.000000 | 2 | -1 | 1 | 3/2 | 1/2 | -.7071068 |
| 1 | -1 | 1 | 1 | 1 | -.7071068 |  |  |  | 2 | 0 | -.7071068 |
|  |  |  | 3/2 | 1/2 | -.7071068 | 2 | 0 | 1 | 1 | 1 | -.5000000 |
| 1 | 0 | 1 | 1 | 1 | .0000000 |  |  |  | 3/2 | 1/2 | .0000000 |
|  |  |  | 3/2 | 1/2 | 1.000000 |  |  |  | 2 | 0 | .8660254 |
| 1 | 1 | 1 | 1 | 1 | .7071068 | 2 | 1 | 1 | 1 | 1 | .0000000 |
|  |  |  | 3/2 | 1/2 | -.7071068 |  |  |  | 3/2 | 1/2 | .7071068 |
| 2 | -2 | 1 | 1 | 1 | .6123724 |  |  |  | 2 | 0 | -.7071068 |
|  |  |  | 3/2 | 1/2 | .7071068 | 2 | 2 | 1 | 1 | 1 | .6123724 |
|  |  |  | 2 | 0 | .3535534 |  |  |  | 3/2 | 1/2 | -.7071068 |
| 2 | -1 | 1 | 1 | 1 | .0000000 |  |  |  | 2 | 0 | .3535534 |

**$v = 5$  $t = 1/2$**

| $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ | $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | -3/2 | 1 | 0 | 1/2 | .7905694 | 1/2 | 1/2 | 1 | 1 | 1/2 | .7905694 |
|  |  |  | 1 | 1/2 | .6123724 | 1/2 | 3/2 | 1 | 0 | 1/2 | -.7905694 |
| 1/2 | -1/2 | 1 | 0 | 1/2 | .6123724 |  |  |  | 1 | 1/2 | -.6123724 |
|  |  |  | 1 | 1/2 | -.7905694 | 3/2 | -1/2 | 1 | 1 | 1/2 | -1.000000 |
| 1/2 | 1/2 | 1 | 0 | 1/2 | -.6123724 | 3/2 | 1/2 | 1 | 1 | 1/2 | 1.000000 |

**$v = 5$  $t = 3/2$**

| $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ | $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | -1/2 | 1 | 1 | 1/2 | -1.000000 | 3/2 | -1/2 | 1 | 1 | 1/2 | -.5000000 |
| 1/2 | 1/2 | 1 | 1 | 1/2 | 1.000000 | 3/2 | 1/2 | 1 | 0 | 3/2 | .8660254 |
| 3/2 | -3/2 | 1 | 0 | 3/2 | .5000000 |  |  |  | 1 | 1/2 | -.5000000 |
|  |  |  | 1 | 1/2 | .8660254 | 3/2 | 3/2 | 1 | 0 | 3/2 | .5000000 |
| 3/2 | -1/2 | 1 | 0 | 3/2 | .8660254 |  |  |  | 1 | 1/2 | 254 |

**$v = 6$  $t = 0$**

| $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ | $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | -1 | 1 | 0 | 0 | .7071068 | 0 | 1 | 1 | 1/2 | 1/2 | -.7071068 |
|  |  |  | 1/2 | 1/2 | -.7071068 | 1 | 0 | 1 | 1/2 | 1/2 | 1.000000 |
| 0 | 1 | 1 | 0 | 0 | -.7071068 |  |  |  |  |  |  |

**$v = 6$  $t = 1$**

| $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ | $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0 | 1 | 1/2 | 1/2 | 1.000000 | 1 | 0 | 1 | 1 | 0 | 1.000000 |
| 1 | -1 | 1 | 1/2 | 1/2 | -.7071068 | 1 | 1 | 1 | 1/2 | 1/2 | .7071068 |
|  |  |  | 1 | 0 | -.7071068 |  |  |  | 1 | 1 | -.7071068 |
| 1 | 0 | 1 | 1/2 | 1/2 | .0000000 |  |  |  |  |  |  |

**$v = 7$  $t = 1/2$**

| $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ |
|---|---|---|---|---|---|
| 1/2 | 1/2 | 1 | 0 | 1/2 | 1.000000 |

**$v = 8$  $t = 0$**

| $T$ | $H_1$ | $\beta$ | $T_\lambda$ | $T_\mu$ | $C$ |
|---|---|---|---|---|---|
| 0 | 0 | 1 | 0 | 0 | 1.000000 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

### $v = 0$    $t = 0$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 0 | 0 | 2 | 2 | .345033 | 0 | 1 | 1/2 | 1/2 | 11/2 | 11/2 | -.500000 |
|   |   | 0 | 0 | 4 | 4 | .462910 |   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.577350 |
|   |   | 0 | 0 | 5 | 5 | .511766 |   |   | 1 | 1 | 2 | 2 | .430332 |
|   |   | 0 | 0 | 8 | 8 | .636209 |   |   | 1 | 1 | 4 | 4 | .577350 |
|   |   | 1/2 | 1/2 | 3/2 | 3/2 | -.288675 |   |   | 1 | 1 | 6 | 6 | .693889 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.353553 |   |   | 3/2 | 3/2 | 7/2 | 7/2 | -1.00000 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.456435 |   |   | 2 | 2 | 0 | 0 | 1.00000 |

### $v = 1$    $t = 1/2$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/2 | 1 | 0 | 1/2 | 2 | 3/2 | -.193430 | 7/2 | 1 | 1 | 1/2 | 2 | 3/2 | -.133631 |
|   |   | 0 | 1/2 | 2 | 5/2 | -.054555 |   |   | 1 | 1/2 | 2 | 5/2 | .276385 |
|   |   | 0 | 1/2 | 2 | 9/2 | -.260449 |   |   | 1 | 1/2 | 2 | 9/2 | .146611 |
|   |   | 0 | 1/2 | 2 | 11/2 | .104031 |   |   | 1 | 1/2 | 2 | 11/2 | .263523 |
|   |   | 0 | 1/2 | 4 | 3/2 | .081441 |   |   | 1 | 1/2 | 4 | 3/2 | .255883 |
|   |   | 0 | 1/2 | 4 | 5/2 | .304725 |   |   | 1 | 1/2 | 4 | 5/2 | .087039 |
|   |   | 0 | 1/2 | 4 | 9/2 | .059432 |   |   | 1 | 1/2 | 4 | 9/2 | -.367806 |
|   |   | 0 | 1/2 | 4 | 11/2 | .298807 |   |   | 1 | 1/2 | 4 | 11/2 | -.221906 |
|   |   | 0 | 1/2 | 4 | 15/2 | -.148250 |   |   | 1 | 1/2 | 4 | 15/2 | -.275241 |
|   |   | 0 | 1/2 | 5 | 3/2 | .198206 |   |   | 1 | 1/2 | 6 | 5/2 | -.202572 |
|   |   | 0 | 1/2 | 5 | 5/2 | -.170783 |   |   | 1 | 1/2 | 6 | 9/2 | .227062 |
|   |   | 0 | 1/2 | 5 | 9/2 | -.283473 |   |   | 1 | 1/2 | 6 | 11/2 | -.362372 |
|   |   | 0 | 1/2 | 5 | 11/2 | .235100 |   |   | 1 | 1/2 | 6 | 15/2 | .507519 |
|   |   | 0 | 1/2 | 5 | 15/2 | .240464 |   |   | 1 | 3/2 | 2 | 7/2 | -.430332 |
|   |   | 0 | 1/2 | 8 | 9/2 | .237929 |   |   | 1 | 3/2 | 4 | 7/2 | -.577350 |
|   |   | 0 | 1/2 | 8 | 11/2 | .307603 |   |   | 1 | 3/2 | 6 | 7/2 | -.693889 |
|   |   | 0 | 1/2 | 8 | 15/2 | .503520 |   |   | 2 | 3/2 | 0 | 7/2 | -1.00000 |

### $v = 2$    $t = 0$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 0 | 0 | 2 | 2 | .130410 | 3 | 1 | 1 | 1 | 2 | 4 | .521641 |
|   |   | 0 | 0 | 4 | 4 | .319438 |   |   | 1 | 1 | 4 | 4 | -.390151 |
|   |   | 0 | 0 | 4 | 5 | .000000 |   |   | 1 | 1 | 4 | 6 | .708080 |
|   |   | 0 | 0 | 5 | 5 | .432522 |   |   | 1 | 1 | 6 | 6 | .109259 |
|   |   | 0 | 0 | 8 | 8 | .832993 |   |   | 3/2 | 3/2 | 7/2 | 7/2 | 1.00000 |
|   |   | 1/2 | 1/2 | 3/2 | 3/2 | .092214 | 5 | 1 | 0 | 0 | 2 | 4 | -.172292 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .000000 |   |   | 0 | 0 | 2 | 5 | -.301511 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .172516 |   |   | 0 | 0 | 4 | 4 | -.418738 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .374575 |   |   | 0 | 0 | 4 | 5 | .277350 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .000000 |   |   | 0 | 0 | 4 | 8 | .573768 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .493150 |   |   | 0 | 0 | 5 | 5 | .285714 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .760415 |   |   | 0 | 0 | 5 | 8 | -.371874 |
|   |   | 1 | 1 | 2 | 2 | .199205 |   |   | 0 | 0 | 8 | 8 | .279303 |
|   |   | 1 | 1 | 4 | 4 | .487950 |   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.258438 |
|   |   | 1 | 1 | 6 | 6 | .849837 |   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.213201 |
|   |   | 3/2 | 3/2 | 7/2 | 7/2 | 1.00000 |   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.268226 |
| 3 | 1 | 0 | 0 | 2 | 2 | .356679 |   |   | 1/2 | 1/2 | 5/2 | 9/2 | .285955 |
|   |   | 0 | 0 | 2 | 4 | -.275321 |   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.314918 |
|   |   | 0 | 0 | 2 | 5 | .455842 |   |   | 1/2 | 1/2 | 5/2 | 15/2 | .398663 |
|   |   | 0 | 0 | 4 | 4 | -.029574 |   |   | 1/2 | 1/2 | 9/2 | 9/2 | .020663 |
|   |   | 0 | 0 | 4 | 5 | -.478091 |   |   | 1/2 | 1/2 | 9/2 | 11/2 | .276202 |
|   |   | 0 | 0 | 5 | 5 | .061564 |   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.157924 |
|   |   | 0 | 0 | 5 | 8 | .519944 |   |   | 1/2 | 1/2 | 11/2 | 11/2 | .196744 |
|   |   | 0 | 0 | 8 | 8 | -.292589 |   |   | 1/2 | 1/2 | 11/2 | 15/2 | .579007 |
|   |   | 1/2 | 1/2 | 3/2 | 3/2 | .208073 |   |   | 1/2 | 1/2 | 15/2 | 15/2 | .017954 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .316228 |   |   | 1 | 1 | 2 | 4 | -.530458 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | .412982 |   |   | 1 | 1 | 2 | 6 | .594588 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.066205 |   |   | 1 | 1 | 4 | 4 | .137442 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .200722 |   |   | 1 | 1 | 4 | 6 | .310514 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.248965 |   |   | 1 | 1 | 6 | 6 | -.499770 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.213855 |   |   | 3/2 | 3/2 | 7/2 | 7/2 | 1.00000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.470499 | 7 | 1 | 0 | 0 | 2 | 5 | -.314561 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.417578 |   |   | 0 | 0 | 2 | 8 | -.355190 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .015327 |   |   | 0 | 0 | 4 | 4 | .230256 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.323821 |   |   | 0 | 0 | 4 | 5 | .339544 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.181456 |   |   | 0 | 0 | 4 | 8 | -.216347 |
|   |   | 1 | 1 | 2 | 2 | -.249716 |   |   | 0 | 0 | 5 | 5 | -.127242 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

### V = 2   t = 0

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |   | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 1 | 0 | 0 | 5 | 8 | -.508077 | | 7 | 1 | 1/2 | 1/2 | 9/2 | 15/2 | -.457040 |
| | | 0 | 0 | 8 | 8 | -.534271 | | | | 1/2 | 1/2 | 11/2 | 11/2 | .252106 |
| | | 1/2 | 1/2 | 3/2 | 11/2 | -.234738 | | | | 1/2 | 1/2 | 11/2 | 15/2 | -.342545 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | -.304166 | | | | 1/2 | 1/2 | 15/2 | 15/2 | .436230 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | -.129181 | | | | 1 | 1 | 2 | 6 | -.471404 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | -.301642 | | | | 1 | 1 | 4 | 4 | -.259794 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | .164842 | | | | 1 | 1 | 4 | 6 | -.749656 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | -.266996 | | | | 1 | 1 | 6 | 6 | -.385099 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.257231 | | | | 3/2 | 3/2 | 7/2 | 7/2 | 1.00000 |

### V = 2   t = 1

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |   | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 1 | 1/2 | 1/2 | 3/2 | 3/2 | .232379 | | 4 | 1 | 1 | 0 | 6 | 5 | -.493150 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | -.254270 | | | | 1 | 0 | 6 | 8 | -.404270 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | -.329610 | | | | 1 | 1 | 2 | 2 | -.315869 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | .315420 | | | | 1 | 1 | 2 | 4 | .049737 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .168550 | | | | 1 | 1 | 2 | 6 | -.362372 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .467099 | | | | 1 | 1 | 4 | 4 | .335055 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | -.039376 | | | | 1 | 1 | 4 | 6 | -.756970 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .579534 | | | | 1 | 1 | 6 | 6 | .284913 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | -.298685 | | | | 3/2 | 1/2 | 7/2 | 3/2 | -.443203 |
| | | 1 | 0 | 2 | 2 | .268621 | | | | 3/2 | 1/2 | 7/2 | 5/2 | .150756 |
| | | 1 | 0 | 2 | 4 | .376999 | | | | 3/2 | 1/2 | 7/2 | 9/2 | -.637059 |
| | | 1 | 0 | 4 | 2 | .187044 | | | | 3/2 | 1/2 | 7/2 | 11/2 | .384353 |
| | | 1 | 0 | 4 | 4 | .369382 | | | | 3/2 | 1/2 | 7/2 | 15/2 | .476731 |
| | | 1 | 0 | 4 | 5 | .387298 | | | | 3/2 | 3/2 | 7/2 | 7/2 | -1.00000 |
| | | 1 | 0 | 6 | 4 | -.414039 | | | | 2 | 1 | 0 | 4 | 1.00000 |
| | | 1 | 0 | 6 | 5 | .345525 | | 6 | 1 | 1/2 | 1/2 | 3/2 | 9/2 | -.293792 |
| | | 1 | 0 | 6 | 8 | .416497 | | | | 1/2 | 1/2 | 3/2 | 11/2 | -.091372 |
| | | 1 | 1 | 2 | 2 | .295084 | | | | 1/2 | 1/2 | 3/2 | 15/2 | .184144 |
| | | 1 | 1 | 2 | 4 | -.599319 | | | | 1/2 | 1/2 | 5/2 | 9/2 | .025836 |
| | | 1 | 1 | 4 | 4 | .047184 | | | | 1/2 | 1/2 | 5/2 | 11/2 | .412325 |
| | | 1 | 1 | 4 | 6 | -.486172 | | | | 1/2 | 1/2 | 5/2 | 15/2 | .247265 |
| | | 1 | 1 | 6 | 6 | -.561384 | | | | 1/2 | 1/2 | 9/2 | 9/2 | -.310565 |
| | | 3/2 | 1/2 | 7/2 | 3/2 | .310530 | | | | 1/2 | 1/2 | 9/2 | 11/2 | .291023 |
| | | 3/2 | 1/2 | 7/2 | 5/2 | .642262 | | | | 1/2 | 1/2 | 9/2 | 15/2 | .076173 |
| | | 3/2 | 1/2 | 7/2 | 9/2 | .340693 | | | | 1/2 | 1/2 | 11/2 | 11/2 | .134402 |
| | | 3/2 | 1/2 | 7/2 | 11/2 | -.612372 | | | | 1/2 | 1/2 | 11/2 | 15/2 | -.459573 |
| | | 3/2 | 3/2 | 7/2 | 7/2 | -1.00000 | | | | 1/2 | 1/2 | 15/2 | 15/2 | -.472644 |
| | | 2 | 1 | 0 | 2 | 1.00000 | | | | 1 | 0 | 2 | 4 | -.256776 |
| 4 | 1 | 1/2 | 1/2 | 3/2 | 5/2 | -.135526 | | | | 1 | 0 | 2 | 5 | -.214286 |
| | | 1/2 | 1/2 | 3/2 | 9/2 | -.343776 | | | | 1 | 0 | 2 | 8 | .258300 |
| | | 1/2 | 1/2 | 3/2 | 11/2 | .286039 | | | | 1 | 0 | 4 | 2 | -.188200 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | .216600 | | | | 1 | 0 | 4 | 4 | -.067049 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | -.125864 | | | | 1 | 0 | 4 | 5 | .410326 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | -.274238 | | | | 1 | 0 | 4 | 8 | -.336373 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .107158 | | | | 1 | 0 | 6 | 2 | .115248 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .064282 | | | | 1 | 0 | 6 | 4 | -.356893 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .588078 | | | | 1 | 0 | 6 | 5 | .000000 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | -.341399 | | | | 1 | 0 | 6 | 8 | .599454 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.242866 | | | | 1 | 1 | 2 | 4 | -.301511 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .326621 | | | | 1 | 1 | 2 | 6 | -.492366 |
| | | 1 | 0 | 2 | 2 | .139414 | | | | 1 | 1 | 4 | 4 | -.445362 |
| | | 1 | 0 | 2 | 4 | .275321 | | | | 1 | 1 | 4 | 6 | .535256 |
| | | 1 | 0 | 2 | 5 | -.288675 | | | | 1 | 1 | 6 | 6 | .596593 |
| | | 1 | 0 | 4 | 2 | -.395822 | | | | 3/2 | 1/2 | 7/2 | 5/2 | -.291937 |
| | | 1 | 0 | 4 | 4 | -.157631 | | | | 3/2 | 1/2 | 7/2 | 9/2 | .327231 |
| | | 1 | 0 | 4 | 5 | .000000 | | | | 3/2 | 1/2 | 7/2 | 11/2 | .522233 |
| | | 1 | 0 | 4 | 8 | -.419070 | | | | 3/2 | 1/2 | 7/2 | 15/2 | -.731413 |
| | | 1 | 0 | 6 | 2 | -.226188 | | | | 3/2 | 3/2 | 7/2 | 7/2 | -1.00000 |
| | | 1 | 0 | 6 | 4 | -.080582 | | | | 2 | 1 | 0 | 6 | 1.00000 |

### V = 3   t = 1/2

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |   | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | 1 | 0 | 1/2 | 2 | 3/2 | .642857 | | 1/2 | 1 | 0 | 1/2 | 5 | 9/2 | .543557 |
| | | 0 | 1/2 | 2 | 5/2 | .197386 | | | | 0 | 1/2 | 5 | 11/2 | .417053 |
| | | 0 | 1/2 | 4 | 9/2 | .123718 | | | | 0 | 1/2 | 8 | 15/2 | .251157 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$v = 3$  $t = 1/2$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 1/2 | 1 | 1 | 1/2 | 2 | 3/2 | -.410326 |
|  |  | 1 | 1/2 | 2 | 5/2 | .188982 |
|  |  | 1 | 1/2 | 4 | 9/2 | -.868165 |
|  |  | 1 | 1/2 | 6 | 11/2 | .205445 |
|  |  | 1 | 3/2 | 4 | 7/2 | -1.00000 |
| 3/2 | 1 | 0 | 1/2 | 2 | 3/2 | .156492 |
|  |  | 0 | 1/2 | 2 | 5/2 | .327469 |
|  |  | 0 | 1/2 | 4 | 5/2 | .407206 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.510784 |
|  |  | 0 | 1/2 | 4 | 11/2 | .343776 |
|  |  | 0 | 1/2 | 5 | 9/2 | .000000 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.540219 |
|  |  | 0 | 1/2 | 8 | 15/2 | .177595 |
|  |  | 1 | 1/2 | 2 | 3/2 | -.449489 |
|  |  | 1 | 1/2 | 2 | 5/2 | .442627 |
|  |  | 1 | 1/2 | 4 | 5/2 | .501158 |
|  |  | 1 | 1/2 | 4 | 9/2 | -.028675 |
|  |  | 1 | 1/2 | 4 | 11/2 | -.111340 |
|  |  | 1 | 1/2 | 6 | 9/2 | .240523 |
|  |  | 1 | 1/2 | 6 | 11/2 | .512946 |
|  |  | 1 | 1/2 | 6 | 15/2 | -.129219 |
|  |  | 1 | 3/2 | 2 | 7/2 | .886405 |
|  |  | 1 | 3/2 | 4 | 7/2 | .462910 |
| 5/2 | 1 | 0 | 1/2 | 2 | 3/2 | .052523 |
|  |  | 0 | 1/2 | 2 | 5/2 | .022220 |
|  |  | 0 | 1/2 | 2 | 9/2 | .117279 |
|  |  | 0 | 1/2 | 4 | 3/2 | -.030281 |
|  |  | 0 | 1/2 | 4 | 5/2 | -.177145 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.050391 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.259238 |
|  |  | 0 | 1/2 | 5 | 5/2 | .089803 |
|  |  | 0 | 1/2 | 5 | 9/2 | .269408 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.247246 |
|  |  | 0 | 1/2 | 5 | 15/2 | -.212836 |
|  |  | 0 | 1/2 | 8 | 11/2 | -.293828 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.779450 |
|  |  | 1 | 1/2 | 2 | 3/2 | .041144 |
|  |  | 1 | 1/2 | 2 | 5/2 | -.127646 |
|  |  | 1 | 1/2 | 2 | 9/2 | -.074857 |
|  |  | 1 | 1/2 | 4 | 3/2 | -.107881 |
|  |  | 1 | 1/2 | 4 | 5/2 | -.057373 |
|  |  | 1 | 1/2 | 4 | 9/2 | .353609 |
|  |  | 1 | 1/2 | 4 | 11/2 | .218298 |
|  |  | 1 | 1/2 | 6 | 9/2 | -.247174 |
|  |  | 1 | 1/2 | 6 | 11/2 | .473361 |
|  |  | 1 | 1/2 | 6 | 15/2 | -.709663 |
|  |  | 1 | 3/2 | 2 | 7/2 | -.309849 |
|  |  | 1 | 3/2 | 4 | 7/2 | -.644008 |
|  |  | 1 | 3/2 | 6 | 7/2 | -.699462 |
| 5/2 | 2 | 0 | 1/2 | 2 | 3/2 | .398748 |
|  |  | 0 | 1/2 | 2 | 5/2 | -.344002 |
|  |  | 0 | 1/2 | 2 | 9/2 | -.113403 |
|  |  | 0 | 1/2 | 4 | 3/2 | -.305133 |
|  |  | 0 | 1/2 | 4 | 5/2 | .101422 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.368648 |
|  |  | 0 | 1/2 | 4 | 11/2 | .037996 |
|  |  | 0 | 1/2 | 5 | 5/2 | .267359 |
|  |  | 0 | 1/2 | 5 | 9/2 | .377045 |
|  |  | 0 | 1/2 | 5 | 11/2 | .211769 |
|  |  | 0 | 1/2 | 5 | 15/2 | .344065 |
|  |  | 0 | 1/2 | 8 | 11/2 | .284117 |
| 5/2 | 2 | 0 | 1/2 | 8 | 15/2 | -.107103 |
|  |  | 1 | 1/2 | 2 | 3/2 | .164686 |
|  |  | 1 | 1/2 | 2 | 5/2 | .143566 |
|  |  | 1 | 1/2 | 2 | 9/2 | .485730 |
|  |  | 1 | 1/2 | 4 | 3/2 | .342594 |
|  |  | 1 | 1/2 | 4 | 5/2 | -.347313 |
|  |  | 1 | 1/2 | 4 | 9/2 | .087640 |
|  |  | 1 | 1/2 | 4 | 11/2 | .546594 |
|  |  | 1 | 1/2 | 6 | 9/2 | .410584 |
|  |  | 1 | 1/2 | 6 | 11/2 | .055709 |
|  |  | 1 | 1/2 | 6 | 15/2 | .016446 |
|  |  | 1 | 3/2 | 2 | 7/2 | -.541186 |
|  |  | 1 | 3/2 | 4 | 7/2 | .724326 |
|  |  | 1 | 3/2 | 6 | 7/2 | -.427165 |
| 7/2 | 1 | 0 | 1/2 | 2 | 3/2 | .128022 |
|  |  | 0 | 1/2 | 2 | 5/2 | .209120 |
|  |  | 0 | 1/2 | 2 | 9/2 | .300006 |
|  |  | 0 | 1/2 | 2 | 11/2 | -.321316 |
|  |  | 0 | 1/2 | 4 | 3/2 | .277457 |
|  |  | 0 | 1/2 | 4 | 5/2 | .071752 |
|  |  | 0 | 1/2 | 4 | 9/2 | .173353 |
|  |  | 0 | 1/2 | 4 | 11/2 | .292846 |
|  |  | 0 | 1/2 | 4 | 15/2 | -.187119 |
|  |  | 0 | 1/2 | 5 | 3/2 | .229571 |
|  |  | 0 | 1/2 | 5 | 5/2 | .343808 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.189422 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.298236 |
|  |  | 0 | 1/2 | 5 | 15/2 | -.237198 |
|  |  | 0 | 1/2 | 8 | 9/2 | .392170 |
|  |  | 0 | 1/2 | 8 | 11/2 | -.088743 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.003204 |
|  |  | 1 | 1/2 | 2 | 3/2 | -.367714 |
|  |  | 1 | 1/2 | 2 | 5/2 | -.233346 |
|  |  | 1 | 1/2 | 2 | 9/2 | .321970 |
|  |  | 1 | 1/2 | 2 | 11/2 | .000000 |
|  |  | 1 | 1/2 | 4 | 3/2 | .000000 |
|  |  | 1 | 1/2 | 4 | 5/2 | -.225898 |
|  |  | 1 | 1/2 | 4 | 9/2 | -.163670 |
|  |  | 1 | 1/2 | 4 | 11/2 | .388579 |
|  |  | 1 | 1/2 | 4 | 15/2 | .393921 |
|  |  | 1 | 1/2 | 6 | 5/2 | .214880 |
|  |  | 1 | 1/2 | 6 | 9/2 | .449493 |
|  |  | 1 | 1/2 | 6 | 11/2 | .078447 |
|  |  | 1 | 1/2 | 6 | 15/2 | .052493 |
|  |  | 1 | 3/2 | 2 | 7/2 | .391622 |
|  |  | 1 | 3/2 | 4 | 7/2 | .812006 |
|  |  | 1 | 3/2 | 6 | 7/2 | .432757 |
| 7/2 | 2 | 0 | 1/2 | 2 | 3/2 | .011460 |
|  |  | 0 | 1/2 | 2 | 5/2 | .043633 |
|  |  | 0 | 1/2 | 2 | 9/2 | -.211397 |
|  |  | 0 | 1/2 | 2 | 11/2 | .077658 |
|  |  | 0 | 1/2 | 4 | 3/2 | .042460 |
|  |  | 0 | 1/2 | 4 | 5/2 | -.066798 |
|  |  | 0 | 1/2 | 4 | 9/2 | .082745 |
|  |  | 0 | 1/2 | 4 | 11/2 | .396545 |
|  |  | 0 | 1/2 | 4 | 15/2 | -.411928 |
|  |  | 0 | 1/2 | 5 | 3/2 | -.131519 |
|  |  | 0 | 1/2 | 5 | 5/2 | .239798 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.058781 |
|  |  | 0 | 1/2 | 5 | 11/2 | .033429 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$V = 3 \quad t = 1/2$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/2 | 2 | 0 | 1/2 | 5 | 15/2 | .383228 | 9/2 | 2 | 0 | 1/2 | 8 | 15/2 | .145861 |
| | | 0 | 1/2 | 8 | 9/2 | -.365090 | | | 1 | 1/2 | 2 | 5/2 | -.235100 |
| | | 0 | 1/2 | 8 | 11/2 | -.492049 | | | 1 | 1/2 | 2 | 9/2 | -.269039 |
| | | 0 | 1/2 | 8 | 15/2 | -.074578 | | | 1 | 1/2 | 2 | 11/2 | -.211380 |
| | | 1 | 1/2 | ? | 3/2 | -.032916 | | | 1 | 1/2 | 4 | 3/2 | -.098222 |
| | | 1 | 1/2 | 2 | 5/2 | -.164008 | | | 1 | 1/2 | 4 | 5/2 | -.496050 |
| | | 1 | 1/2 | 2 | 9/2 | .180893 | | | 1 | 1/2 | 4 | 9/2 | .070042 |
| | | 1 | 1/2 | 2 | 11/2 | .305670 | | | 1 | 1/2 | 4 | 11/2 | -.404061 |
| | | 1 | 1/2 | 4 | 3/2 | -.273889 | | | 1 | 1/2 | 4 | 15/2 | .210028 |
| | | 1 | 1/2 | 4 | 5/2 | -.166252 | | | 1 | 1/2 | 6 | 3/2 | -.308957 |
| | | 1 | 1/2 | 4 | 9/2 | .030474 | | | 1 | 1/2 | 6 | 5/2 | -.230667 |
| | | 1 | 1/2 | 4 | 11/2 | .054783 | | | 1 | 1/2 | 6 | 9/2 | .345916 |
| | | 1 | 1/2 | 4 | 15/2 | -.409864 | | | 1 | 1/2 | 6 | 11/2 | -.240464 |
| | | 1 | 1/2 | 6 | 5/2 | .536622 | | | 1 | 1/2 | 6 | 15/2 | -.183098 |
| | | 1 | 1/2 | 6 | 9/2 | -.186602 | | | 1 | 3/2 | 2 | 7/2 | .908514 |
| | | 1 | 1/2 | 6 | 11/2 | .324578 | | | 1 | 3/2 | 4 | 7/2 | .113961 |
| | | 1 | 1/2 | 6 | 15/2 | .380717 | | | 1 | 3/2 | 6 | 7/2 | -.402015 |
| | | 1 | 3/2 | 2 | 7/2 | .813294 | 11/2 | 1 | 0 | 1/2 | 2 | 9/2 | .332564 |
| | | 1 | 3/2 | 4 | 7/2 | .085513 | | | 0 | 1/2 | 2 | 11/2 | .275264 |
| | | 1 | 3/2 | 6 | 7/2 | -.575535 | | | 0 | 1/2 | 2 | 15/2 | -.293815 |
| 9/2 | 1 | 0 | 1/2 | 2 | 5/2 | -.016052 | | | 0 | 1/2 | 4 | 3/2 | -.220084 |
| | | 0 | 1/2 | 2 | 9/2 | -.121656 | | | 0 | 1/2 | 4 | 5/2 | -.050316 |
| | | 0 | 1/2 | 2 | 11/2 | .044147 | | | 0 | 1/2 | 4 | 9/2 | -.061863 |
| | | 0 | 1/2 | 4 | 3/2 | .029738 | | | 0 | 1/2 | 4 | 11/2 | .197407 |
| | | 0 | 1/2 | 4 | 5/2 | .161395 | | | 0 | 1/2 | 4 | 15/2 | .028174 |
| | | 0 | 1/2 | 4 | 9/2 | .046268 | | | 0 | 1/2 | 5 | 3/2 | .102706 |
| | | 0 | 1/2 | 4 | 11/2 | .250232 | | | 0 | 1/2 | 5 | 5/2 | -.303414 |
| | | 0 | 1/2 | 4 | 15/2 | -.101743 | | | 0 | 1/2 | 5 | 9/2 | .345945 |
| | | 0 | 1/2 | 5 | 3/2 | .069985 | | | 0 | 1/2 | 5 | 11/2 | -.044679 |
| | | 0 | 1/2 | 5 | 5/2 | -.095875 | | | 0 | 1/2 | 5 | 15/2 | -.362606 |
| | | 0 | 1/2 | 5 | 9/2 | -.250232 | | | 0 | 1/2 | 8 | 5/2 | .150241 |
| | | 0 | 1/2 | 5 | 11/2 | .231511 | | | 0 | 1/2 | 8 | 9/2 | .474272 |
| | | 0 | 1/2 | 5 | 15/2 | .238268 | | | 0 | 1/2 | 8 | 11/2 | -.075690 |
| | | 0 | 1/2 | 8 | 9/2 | .178215 | | | 0 | 1/2 | 8 | 15/2 | .154091 |
| | | 0 | 1/2 | 8 | 11/2 | .330085 | | | 1 | 1/2 | 2 | 9/2 | .326214 |
| | | 0 | 1/2 | 8 | 15/2 | .743748 | | | 1 | 1/2 | 2 | 11/2 | .020273 |
| | | 1 | 1/2 | 2 | 5/2 | .092214 | | | 1 | 1/2 | 2 | 15/2 | -.210980 |
| | | 1 | 1/2 | 2 | 9/2 | .077651 | | | 1 | 1/2 | 4 | 3/2 | .333590 |
| | | 1 | 1/2 | 2 | 11/2 | .126804 | | | 1 | 1/2 | 4 | 5/2 | -.094308 |
| | | 1 | 1/2 | 4 | 3/2 | .105946 | | | 1 | 1/2 | 4 | 9/2 | -.288021 |
| | | 1 | 1/2 | 4 | 5/2 | .052272 | | | 1 | 1/2 | 4 | 11/2 | .452304 |
| | | 1 | 1/2 | 4 | 9/2 | -.324675 | | | 1 | 1/2 | 4 | 15/2 | -.296554 |
| | | 1 | 1/2 | 4 | 11/2 | -.210714 | | | 1 | 1/2 | 6 | 3/2 | -.429092 |
| | | 1 | 1/2 | 4 | 15/2 | -.214187 | | | 1 | 1/2 | 6 | 5/2 | -.060510 |
| | | 1 | 1/2 | 6 | 3/2 | .000000 | | | 1 | 1/2 | 6 | 9/2 | -.277606 |
| | | 1 | 1/2 | 6 | 5/2 | -.113094 | | | 1 | 1/2 | 6 | 11/2 | -.159393 |
| | | 1 | 1/2 | 6 | 9/2 | .240523 | | | 1 | 1/2 | 6 | 15/2 | -.250506 |
| | | 1 | 1/2 | 6 | 11/2 | -.445866 | | | 1 | 3/2 | 2 | 7/2 | .370312 |
| | | 1 | 1/2 | 6 | 15/2 | .700216 | | | 1 | 3/2 | 4 | 7/2 | .887517 |
| | | 1 | 3/2 | 2 | 7/2 | .267261 | | | 1 | 3/2 | 6 | 7/2 | -.274194 |
| | | 1 | 3/2 | 4 | 7/2 | .581087 | 11/2 | 2 | 0 | 1/2 | 2 | 9/2 | -.052410 |
| | | 1 | 3/2 | 6 | 7/2 | .768706 | | | 0 | 1/2 | 2 | 11/2 | .074978 |
| 9/2 | 2 | 0 | 1/2 | 2 | 5/2 | -.245554 | | | 0 | 1/2 | 2 | 15/2 | -.058421 |
| | | 0 | 1/2 | 2 | 9/2 | .143152 | | | 0 | 1/2 | 4 | 3/2 | -.095467 |
| | | 0 | 1/2 | 2 | 11/2 | .305195 | | | 0 | 1/2 | 4 | 5/2 | .478764 |
| | | 0 | 1/2 | 4 | 3/2 | -.279942 | | | 0 | 1/2 | 4 | 9/2 | -.165035 |
| | | 0 | 1/2 | 4 | 5/2 | .142434 | | | 0 | 1/2 | 4 | 11/2 | -.140719 |
| | | 0 | 1/2 | 4 | 9/2 | .421935 | | | 0 | 1/2 | 4 | 15/2 | -.506220 |
| | | 0 | 1/2 | 4 | 11/2 | -.039260 | | | 0 | 1/2 | 5 | 3/2 | -.206845 |
| | | 0 | 1/2 | 4 | 15/2 | .239440 | | | 0 | 1/2 | 5 | 5/2 | .080579 |
| | | 0 | 1/2 | 5 | 3/2 | .267643 | | | 0 | 1/2 | 5 | 9/2 | .171774 |
| | | 0 | 1/2 | 5 | 5/2 | .056408 | | | 0 | 1/2 | 5 | 11/2 | .363385 |
| | | 0 | 1/2 | 5 | 9/2 | .245373 | | | 0 | 1/2 | 5 | 15/2 | -.037810 |
| | | 0 | 1/2 | 5 | 11/2 | -.177072 | | | 0 | 1/2 | 8 | 5/2 | -.546358 |
| | | 0 | 1/2 | 5 | 15/2 | .373826 | | | 0 | 1/2 | 8 | 9/2 | .012246 |
| | | 0 | 1/2 | 8 | 9/2 | .110677 | | | 0 | 1/2 | 8 | 11/2 | -.285002 |
| | | 0 | 1/2 | 8 | 11/2 | -.388410 | | | 0 | 1/2 | 8 | 15/2 | .181633 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

$v = 3$    $t = 1/2$

**Left block**

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 11/2 | 2 | 1 | 1/2 | 2 | 9/2 | -.175625 |
| | | 1 | 1/2 | 2 | 11/2 | .514465 |
| | | 1 | 1/2 | 2 | 15/2 | .294261 |
| | | 1 | 1/2 | 4 | 3/2 | -.066992 |
| | | 1 | 1/2 | 4 | 5/2 | -.306319 |
| | | 1 | 1/2 | 4 | 9/2 | -.150553 |
| | | 1 | 1/2 | 4 | 11/2 | .083774 |
| | | 1 | 1/2 | 4 | 15/2 | .035550 |
| | | 1 | 1/2 | 6 | 3/2 | -.104856 |
| | | 1 | 1/2 | 6 | 5/2 | -.477637 |
| | | 1 | 1/2 | 6 | 9/2 | -.013390 |
| | | 1 | 1/2 | 6 | 11/2 | .483572 |
| | | 1 | 1/2 | 6 | 15/2 | -.124385 |
| | | 1 | 3/2 | 2 | 7/2 | .764913 |
| | | 1 | 3/2 | 4 | 7/2 | -.123868 |
| | | 1 | 3/2 | 6 | 7/2 | .632112 |
| 13/2 | 1 | 0 | 1/2 | 2 | 9/2 | -.331555 |
| | | 0 | 1/2 | 2 | 11/2 | .120747 |
| | | 0 | 1/2 | 2 | 15/2 | .265506 |
| | | 0 | 1/2 | 4 | 5/2 | .038104 |
| | | 0 | 1/2 | 4 | 9/2 | .244519 |
| | | 0 | 1/2 | 4 | 11/2 | -.179356 |
| | | 0 | 1/2 | 4 | 15/2 | -.222382 |
| | | 0 | 1/2 | 5 | 3/2 | .359178 |
| | | 0 | 1/2 | 5 | 5/2 | .215894 |
| | | 0 | 1/2 | 5 | 9/2 | .200518 |
| | | 0 | 1/2 | 5 | 11/2 | .302786 |
| | | 0 | 1/2 | 5 | 15/2 | .000000 |
| | | 0 | 1/2 | 8 | 3/2 | -.301206 |
| | | 0 | 1/2 | 8 | 5/2 | .233245 |
| | | 0 | 1/2 | 8 | 9/2 | .242987 |
| | | 0 | 1/2 | 8 | 11/2 | -.231726 |
| | | 0 | 1/2 | 8 | 15/2 | -.311064 |
| | | 1 | 1/2 | 2 | 9/2 | -.133417 |
| | | 1 | 1/2 | 2 | 11/2 | -.299619 |
| | | 1 | 1/2 | 2 | 15/2 | -.305043 |
| | | 1 | 1/2 | 4 | 5/2 | .252110 |
| | | 1 | 1/2 | 4 | 9/2 | .363559 |
| | | 1 | 1/2 | 4 | 11/2 | .265325 |
| | | 1 | 1/2 | 4 | 15/2 | .514972 |
| | | 1 | 1/2 | 6 | 3/2 | .195283 |
| | | 1 | 1/2 | 6 | 5/2 | .085229 |
| | | 1 | 1/2 | 6 | 9/2 | -.393425 |
| | | 1 | 1/2 | 6 | 11/2 | -.260512 |
| | | 1 | 1/2 | 6 | 15/2 | .000000 |
| | | 1 | 3/2 | 4 | 7/2 | .402228 |
| | | 1 | 3/2 | 6 | 7/2 | .915540 |
| 13/2 | 2 | 0 | 1/2 | 2 | 9/2 | .109373 |
| | | 0 | 1/2 | 2 | 11/2 | .204911 |
| | | 0 | 1/2 | 2 | 15/2 | -.296280 |
| | | 0 | 1/2 | 4 | 5/2 | .278781 |
| | | 0 | 1/2 | 4 | 9/2 | .174960 |
| | | 0 | 1/2 | 4 | 11/2 | -.204447 |
| | | 0 | 1/2 | 4 | 15/2 | -.289844 |
| | | 0 | 1/2 | 5 | 3/2 | .000000 |
| | | 0 | 1/2 | 5 | 5/2 | .167527 |
| | | 0 | 1/2 | 5 | 9/2 | .096979 |
| | | 0 | 1/2 | 5 | 11/2 | -.347492 |
| | | 0 | 1/2 | 5 | 15/2 | .346392 |
| | | 0 | 1/2 | 8 | 3/2 | .041169 |
| | | 0 | 1/2 | 8 | 5/2 | .351985 |
| | | 0 | 1/2 | 8 | 9/2 | -.415553 |
| | | 0 | 1/2 | 8 | 11/2 | -.197146 |
| | | 0 | 1/2 | 8 | 15/2 | .093711 |
| | | 1 | 1/2 | 2 | 9/2 | -.314151 |
| | | 1 | 1/2 | 2 | 11/2 | .130791 |
| | | 1 | 1/2 | 2 | 15/2 | -.397580 |

**Right block**

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 13/2 | 2 | 1 | 1/2 | 4 | 5/2 | .195629 |
| | | 1 | 1/2 | 4 | 9/2 | -.314188 |
| | | 1 | 1/2 | 4 | 11/2 | .222373 |
| | | 1 | 1/2 | 4 | 15/2 | -.178254 |
| | | 1 | 1/2 | 6 | 3/2 | -.444498 |
| | | 1 | 1/2 | 6 | 5/2 | .131167 |
| | | 1 | 1/2 | 6 | 9/2 | .163348 |
| | | 1 | 1/2 | 6 | 11/2 | -.436008 |
| | | 1 | 1/2 | 6 | 15/2 | -.276325 |
| | | 1 | 3/2 | 4 | 7/2 | -.915540 |
| | | 1 | 3/2 | 6 | 7/2 | .402228 |
| 15/2 | 1 | 0 | 1/2 | 2 | 11/2 | .232526 |
| | | 0 | 1/2 | 2 | 15/2 | .319023 |
| | | 0 | 1/2 | 4 | 9/2 | .203255 |
| | | 0 | 1/2 | 4 | 11/2 | .262314 |
| | | 0 | 1/2 | 4 | 15/2 | .044347 |
| | | 0 | 1/2 | 5 | 5/2 | .243182 |
| | | 0 | 1/2 | 5 | 9/2 | .145444 |
| | | 0 | 1/2 | 5 | 11/2 | .000000 |
| | | 0 | 1/2 | 5 | 15/2 | .446431 |
| | | 0 | 1/2 | 8 | 3/2 | -.387298 |
| | | 0 | 1/2 | 8 | 5/2 | -.059372 |
| | | 0 | 1/2 | 8 | 9/2 | .123818 |
| | | 0 | 1/2 | 8 | 11/2 | .407534 |
| | | 0 | 1/2 | 8 | 15/2 | -.342836 |
| | | 1 | 1/2 | 2 | 11/2 | -.222627 |
| | | 1 | 1/2 | 2 | 15/2 | -.305441 |
| | | 1 | 1/2 | 4 | 9/2 | .178287 |
| | | 1 | 1/2 | 4 | 11/2 | -.235614 |
| | | 1 | 1/2 | 4 | 15/2 | -.466791 |
| | | 1 | 1/2 | 6 | 3/2 | .228125 |
| | | 1 | 1/2 | 6 | 5/2 | -.234244 |
| | | 1 | 1/2 | 6 | 9/2 | .638362 |
| | | 1 | 1/2 | 6 | 11/2 | -.167452 |
| | | 1 | 1/2 | 6 | 15/2 | .097419 |
| | | 1 | 3/2 | 4 | 7/2 | .879049 |
| | | 1 | 3/2 | 6 | 7/2 | .476731 |
| 17/2 | 1 | 0 | 1/2 | 2 | 15/2 | .027804 |
| | | 0 | 1/2 | 4 | 9/2 | -.101097 |
| | | 0 | 1/2 | 4 | 11/2 | .302220 |
| | | 0 | 1/2 | 4 | 15/2 | -.406593 |
| | | 0 | 1/2 | 5 | 9/2 | .341412 |
| | | 0 | 1/2 | 5 | 11/2 | .000000 |
| | | 0 | 1/2 | 5 | 15/2 | -.265542 |
| | | 0 | 1/2 | 8 | 3/2 | -.130410 |
| | | 0 | 1/2 | 8 | 5/2 | -.364110 |
| | | 0 | 1/2 | 8 | 9/2 | .135426 |
| | | 0 | 1/2 | 8 | 11/2 | -.543021 |
| | | 0 | 1/2 | 8 | 15/2 | -.287196 |
| | | 1 | 1/2 | 2 | 15/2 | -.479157 |
| | | 1 | 1/2 | 4 | 9/2 | .212828 |
| | | 1 | 1/2 | 4 | 11/2 | .413550 |
| | | 1 | 1/2 | 4 | 15/2 | -.046268 |
| | | 1 | 1/2 | 6 | 5/2 | -.392709 |
| | | 1 | 1/2 | 6 | 9/2 | .052738 |
| | | 1 | 1/2 | 6 | 11/2 | -.181818 |
| | | 1 | 1/2 | 6 | 15/2 | .601571 |
| | | 1 | 3/2 | 6 | 7/2 | -1.00000 |
| 19/2 | 1 | 0 | 1/2 | 2 | 15/2 | .197386 |
| | | 0 | 1/2 | 4 | 11/2 | -.243599 |
| | | 0 | 1/2 | 4 | 15/2 | -.134655 |
| | | 0 | 1/2 | 5 | 9/2 | .199900 |
| | | 0 | 1/2 | 5 | 11/2 | .316960 |
| | | 0 | 1/2 | 5 | 15/2 | .244082 |
| | | 0 | 1/2 | 8 | 3/2 | -.207020 |
| | | 0 | 1/2 | 8 | 5/2 | .178376 |
| | | 0 | 1/2 | 8 | 9/2 | .435385 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

### v = 3  t = 1/2

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19/2 | 1 | 0 | 1/2 | 8 | 11/2 | -.095009 | 19/2 | 1 | 1 | 1/2 | 6 | 9/2 | -.312893 |
| | | 0 | 1/2 | 8 | 15/2 | .640550 | | | 1 | 1/2 | 6 | 11/2 | -.512823 |
| | | 1 | 1/2 | 2 | 15/2 | .188982 | | | 1 | 1/2 | 6 | 15/2 | .502740 |
| | | 1 | 1/2 | 4 | 11/2 | -.170941 | | | 1 | 3/2 | 6 | 7/2 | 1.00000 |
| | | 1 | 1/2 | 4 | 15/2 | .566947 | | | | | | | |

### v = 3  t = 3/2

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3/2 | 1 | 0 | 3/2 | 2 | 7/2 | .670059 | 9/2 | 1 | 1 | 1/2 | 6 | 9/2 | .472132 |
| | | 0 | 3/2 | 4 | 7/2 | -.282120 | | | 1 | 1/2 | 6 | 11/2 | .312841 |
| | | 0 | 3/2 | 5 | 7/2 | .686607 | | | 1 | 1/2 | 6 | 15/2 | .081884 |
| | | 1 | 1/2 | 2 | 3/2 | -.346410 | | | 1 | 3/2 | 2 | 7/2 | .321208 |
| | | 1 | 1/2 | 2 | 5/2 | -.268024 | | | 1 | 3/2 | 4 | 7/2 | -.805823 |
| | | 1 | 1/2 | 4 | 5/2 | -.191663 | | | 1 | 3/2 | 6 | 7/2 | .497468 |
| | | 1 | 1/2 | 4 | 9/2 | -.486172 | | | 2 | 1/2 | 0 | 9/2 | -1.00000 |
| | | 1 | 1/2 | 4 | 11/2 | -.404520 | 11/2 | 1 | 0 | 3/2 | 2 | 7/2 | .208063 |
| | | 1 | 1/2 | 6 | 9/2 | -.499350 | | | 0 | 3/2 | 4 | 7/2 | .597614 |
| | | 1 | 1/2 | 6 | 11/2 | .155302 | | | 0 | 3/2 | 5 | 7/2 | -.470200 |
| | | 1 | 1/2 | 6 | 15/2 | -.312984 | | | 0 | 3/2 | 8 | 7/2 | .615206 |
| | | 1 | 3/2 | 2 | 7/2 | .462910 | | | 1 | 1/2 | 2 | 9/2 | -.284268 |
| | | 1 | 3/2 | 4 | 7/2 | -.886405 | | | 1 | 1/2 | 2 | 11/2 | .033890 |
| | | 2 | 1/2 | 0 | 3/2 | -1.00000 | | | 1 | 1/2 | 2 | 15/2 | -.352693 |
| 5/2 | 1 | 0 | 3/2 | 2 | 7/2 | -.154303 | | | 1 | 1/2 | 4 | 3/2 | -.233550 |
| | | 0 | 3/2 | 4 | 7/2 | .861892 | | | 1 | 1/2 | 4 | 5/2 | .223915 |
| | | 0 | 3/2 | 5 | 7/2 | .483046 | | | 1 | 1/2 | 4 | 9/2 | -.052486 |
| | | 1 | 1/2 | 2 | 3/2 | .218841 | | | 1 | 1/2 | 4 | 11/2 | .394213 |
| | | 1 | 1/2 | 2 | 5/2 | .401189 | | | 1 | 1/2 | 4 | 15/2 | .198299 |
| | | 1 | 1/2 | 2 | 9/2 | -.271470 | | | 1 | 1/2 | 6 | 3/2 | .089664 |
| | | 1 | 1/2 | 4 | 3/2 | .156492 | | | 1 | 1/2 | 6 | 5/2 | -.404617 |
| | | 1 | 1/2 | 4 | 5/2 | -.353706 | | | 1 | 1/2 | 6 | 9/2 | -.285583 |
| | | 1 | 1/2 | 4 | 9/2 | .145335 | | | 1 | 1/2 | 6 | 11/2 | -.186519 |
| | | 1 | 1/2 | 4 | 11/2 | -.316663 | | | 1 | 1/2 | 6 | 15/2 | .450982 |
| | | 1 | 1/2 | 6 | 9/2 | -.035855 | | | 1 | 3/2 | 2 | 7/2 | -.527046 |
| | | 1 | 1/2 | 6 | 11/2 | .572215 | | | 1 | 3/2 | 4 | 7/2 | .443813 |
| | | 1 | 1/2 | 6 | 15/2 | .343146 | | | 1 | 3/2 | 6 | 7/2 | .724743 |
| | | 1 | 3/2 | 2 | 7/2 | .781736 | | | 2 | 1/2 | 0 | 11/2 | -1.00000 |
| | | 1 | 3/2 | 4 | 7/2 | .246183 | 15/2 | 1 | 0 | 3/2 | 4 | 7/2 | .256776 |
| | | 1 | 3/2 | 6 | 7/2 | -.572960 | | | 0 | 3/2 | 5 | 7/2 | .416497 |
| | | 2 | 1/2 | 0 | 5/2 | -1.00000 | | | 0 | 3/2 | 8 | 7/2 | -.872122 |
| 9/2 | 1 | 0 | 3/2 | 2 | 7/2 | -.570616 | | | 1 | 1/2 | 2 | 11/2 | -.305441 |
| | | 0 | 3/2 | 4 | 7/2 | .130209 | | | 1 | 1/2 | 2 | 15/2 | .222627 |
| | | 0 | 3/2 | 5 | 7/2 | .621059 | | | 1 | 1/2 | 4 | 9/2 | -.415834 |
| | | 0 | 3/2 | 8 | 7/2 | .521276 | | | 1 | 1/2 | 4 | 11/2 | .171732 |
| | | 1 | 1/2 | 2 | 5/2 | -.210280 | | | 1 | 1/2 | 4 | 15/2 | -.326621 |
| | | 1 | 1/2 | 2 | 9/2 | -.158910 | | | 1 | 1/2 | 6 | 3/2 | -.156492 |
| | | 1 | 1/2 | 2 | 11/2 | .311400 | | | 1 | 1/2 | 6 | 5/2 | -.210133 |
| | | 1 | 1/2 | 4 | 3/2 | .307482 | | | 1 | 1/2 | 6 | 9/2 | -.064735 |
| | | 1 | 1/2 | 4 | 5/2 | .112576 | | | 1 | 1/2 | 6 | 11/2 | .390562 |
| | | 1 | 1/2 | 4 | 9/2 | -.135545 | | | 1 | 1/2 | 6 | 15/2 | .568047 |
| | | 1 | 1/2 | 4 | 11/2 | .057496 | | | 1 | 3/2 | 4 | 7/2 | .476731 |
| | | 1 | 1/2 | 4 | 15/2 | .525993 | | | 1 | 3/2 | 6 | 7/2 | -.879049 |
| | | 1 | 1/2 | 6 | 3/2 | .315817 | | | 2 | 1/2 | 0 | 15/2 | -1.00000 |
| | | 1 | 1/2 | 6 | 5/2 | -.027773 | | | | | | | |

### v = 4  t = 0

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 0 | 0 | 2 | 2 | .716476 | 0 | 1 | 1 | 1 | 6 | 6 | -.432757 |
| | | 0 | 0 | 4 | 4 | -.614545 | 0 | 2 | 0 | 0 | 2 | 2 | -.283904 |
| | | 0 | 0 | 5 | 5 | .283388 | | | 0 | 0 | 4 | 4 | -.605764 |
| | | 0 | 0 | 8 | 8 | -.169374 | | | 0 | 0 | 5 | 5 | -.162351 |
| | | 1/2 | 1/2 | 3/2 | 3/2 | .525416 | | | 0 | 0 | 8 | 8 | .725321 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | -.477750 | | | 1/2 | 1/2 | 3/2 | 3/2 | -.301007 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .607090 | | | 1/2 | 1/2 | 5/2 | 5/2 | -.630486 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | -.303349 | | | 1/2 | 1/2 | 9/2 | 9/2 | .078421 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | -.187386 | | | 1/2 | 1/2 | 11/2 | 11/2 | -.118491 |
| | | 1 | 1 | 2 | 2 | -.391622 | | | 1/2 | 1/2 | 15/2 | 15/2 | .701208 |
| | | 1 | 1 | 4 | 4 | .812006 | | | 1 | 1 | 2 | 2 | -.813294 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D_{(vt)\alpha;J_\lambda J_\mu}^{T_\lambda T_\mu J}$

$$V = 4 \quad t = 0$$

| J | ∞ | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 2 | 1 | 1 | 4 | 4 | -.085513 | | 3 | 1 | 0 | 0 | 5 | 5 | .000000 |
|   |   | 1 | 1 | 6 | 6 | .575535 | |   |   | 0 | 0 | 5 | 8 | -.621582 |
| 2 | 1 | 0 | 0 | 2 | 2 | .052827 | |   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 0 | 0 | 2 | 4 | -.242811 | |   |   | 1/2 | 1/2 | 3/2 | 3/2 | .000000 |
|   |   | 0 | 0 | 4 | 4 | -.284294 | |   |   | 1/2 | 1/2 | 3/2 | 5/2 | -.452856 |
|   |   | 0 | 0 | 4 | 5 | .100554 | |   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.275993 |
|   |   | 0 | 0 | 5 | 5 | -.091417 | |   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 0 | 0 | 8 | 8 | -.915948 | |   |   | 1/2 | 1/2 | 5/2 | 9/2 | .153304 |
|   |   | 1/2 | 1/2 | 3/2 | 3/2 | .025588 | |   |   | 1/2 | 1/2 | 5/2 | 11/2 | .071306 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | -.164811 | |   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .126144 | |   |   | 1/2 | 1/2 | 9/2 | 11/2 | .494106 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.066307 | |   |   | 1/2 | 1/2 | 9/2 | 15/2 | .647827 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.246002 | |   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.319127 | |   |   | 1/2 | 1/2 | 11/2 | 15/2 | .162305 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.466306 | |   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.065991 | |   |   | 1 | 1 | 2 | 2 | .000000 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.753471 | |   |   | 1 | 1 | 2 | 4 | .228218 |
|   |   | 1 | 1 | 2 | 2 | -.478714 | |   |   | 1 | 1 | 4 | 4 | .000000 |
|   |   | 1 | 1 | 2 | 4 | .117851 | |   |   | 1 | 1 | 4 | 6 | -.973610 |
|   |   | 1 | 1 | 4 | 4 | -.575259 | |   |   | 1 | 1 | 6 | 6 | .000000 |
|   |   | 1 | 1 | 4 | 6 | .218518 | | 3 | 2 | 0 | 0 | 2 | 2 | .000000 |
|   |   | 1 | 1 | 6 | 6 | -.615038 | |   |   | 0 | 0 | 2 | 4 | .378043 |
| 2 | 2 | 0 | 0 | 2 | 2 | -.011971 | |   |   | 0 | 0 | 2 | 5 | .035584 |
|   |   | 0 | 0 | 2 | 4 | .395082 | |   |   | 0 | 0 | 4 | 4 | .000000 |
|   |   | 0 | 0 | 4 | 4 | .279607 | |   |   | 0 | 0 | 4 | 5 | -.693788 |
|   |   | 0 | 0 | 4 | 5 | -.789110 | |   |   | 0 | 0 | 5 | 5 | .000000 |
|   |   | 0 | 0 | 5 | 5 | -.283014 | |   |   | 0 | 0 | 5 | 8 | .611944 |
|   |   | 0 | 0 | 8 | 8 | -.250591 | |   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 1/2 | 1/2 | 3/2 | 3/2 | -.023950 | |   |   | 1/2 | 1/2 | 3/2 | 3/2 | .000000 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .554487 | |   |   | 1/2 | 1/2 | 3/2 | 5/2 | -.459988 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.477248 | |   |   | 1/2 | 1/2 | 3/2 | 9/2 | .271713 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .314122 | |   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.232608 | |   |   | 1/2 | 1/2 | 5/2 | 9/2 | .424033 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .061152 | |   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.391118 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .299132 | |   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.324171 | |   |   | 1/2 | 1/2 | 9/2 | 11/2 | .254804 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.336333 | |   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.346225 |
|   |   | 1 | 1 | 2 | 2 | .755291 | |   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1 | 1 | 2 | 4 | .192243 | |   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.443857 |
|   |   | 1 | 1 | 4 | 4 | -.068977 | |   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 1 | 4 | 6 | .550639 | |   |   | 1 | 1 | 2 | 2 | .000000 |
|   |   | 1 | 1 | 6 | 6 | -.290889 | |   |   | 1 | 1 | 2 | 4 | .973610 |
| 2 | 3 | 0 | 0 | 2 | 2 | -.355499 | |   |   | 1 | 1 | 4 | 4 | .000000 |
|   |   | 0 | 0 | 2 | 4 | .497532 | |   |   | 1 | 1 | 4 | 6 | .228218 |
|   |   | 0 | 0 | 4 | 4 | .016389 | |   |   | 1 | 1 | 6 | 6 | .000000 |
|   |   | 0 | 0 | 4 | 5 | .494498 | | 4 | 1 | 0 | 0 | 2 | 2 | -.455306 |
|   |   | 0 | 0 | 5 | 5 | -.616073 | |   |   | 0 | 0 | 2 | 4 | .088478 |
|   |   | 0 | 0 | 8 | 8 | -.041707 | |   |   | 0 | 0 | 2 | 5 | -.585256 |
|   |   | 1/2 | 1/2 | 3/2 | 3/2 | -.418057 | |   |   | 0 | 0 | 4 | 4 | -.041041 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .287933 | |   |   | 0 | 0 | 4 | 5 | .182149 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .097177 | |   |   | 0 | 0 | 4 | 8 | -.032361 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.431152 | |   |   | 0 | 0 | 5 | 5 | -.382929 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.095421 | |   |   | 0 | 0 | 5 | 8 | -.150840 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .669335 | |   |   | 0 | 0 | 8 | 8 | .486874 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.282387 | |   |   | 1/2 | 1/2 | 3/2 | 5/2 | .105936 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .001109 | |   |   | 1/2 | 1/2 | 3/2 | 9/2 | .362198 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.100640 | |   |   | 1/2 | 1/2 | 3/2 | 11/2 | .124113 |
|   |   | 1 | 1 | 2 | 2 | -.032386 | |   |   | 1/2 | 1/2 | 5/2 | 5/2 | .079674 |
|   |   | 1 | 1 | 2 | 4 | .693633 | |   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.077994 |
|   |   | 1 | 1 | 4 | 4 | .472654 | |   |   | 1/2 | 1/2 | 5/2 | 11/2 | .144837 |
|   |   | 1 | 1 | 4 | 6 | -.355220 | |   |   | 1/2 | 1/2 | 9/2 | 9/2 | .614833 |
|   |   | 1 | 1 | 6 | 6 | -.410173 | |   |   | 1/2 | 1/2 | 9/2 | 11/2 | .522318 |
| 3 | 1 | 0 | 0 | 2 | 2 | .000000 | |   |   | 1/2 | 1/2 | 9/2 | 15/2 | .193866 |
|   |   | 0 | 0 | 2 | 4 | .493710 | |   |   | 1/2 | 1/2 | 11/2 | 11/2 | .170566 |
|   |   | 0 | 0 | 2 | 5 | -.525487 | |   |   | 1/2 | 1/2 | 11/2 | 15/2 | .287262 |
|   |   | 0 | 0 | 4 | 4 | .000000 | |   |   | 1/2 | 1/2 | 15/2 | 15/2 | .093519 |
|   |   | 0 | 0 | 4 | 5 | -.306186 | |   |   | 1 | 1 | 2 | 2 | .169682 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

$V = 4$    $t = 0$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 1 | 1 | 1 | 2 | 4 | -.606500 | 4 | 4 | 0 | 0 | 8 | 8 | .006532 |
|   |   | 1 | 1 | 2 | 6 | .185679 |   |   | 1/2 | 1/2 | 3/2 | 5/2 | .033750 |
|   |   | 1 | 1 | 4 | 4 | -.438434 |   |   | 1/2 | 1/2 | 3/2 | 9/2 | .119479 |
|   |   | 1 | 1 | 4 | 6 | -.517681 |   |   | 1/2 | 1/2 | 3/2 | 11/2 | .417219 |
|   |   | 1 | 1 | 6 | 6 | -.329653 |   |   | 1/2 | 1/2 | 5/2 | 5/2 | .025384 |
| 4 | 2 | 0 | 0 | 2 | 2 | .251154 |   |   | 1/2 | 1/2 | 5/2 | 9/2 | .441368 |
|   |   | 0 | 0 | 2 | 4 | .458488 |   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.662675 |
|   |   | 0 | 0 | 2 | 5 | .027027 |   |   | 1/2 | 1/2 | 9/2 | 9/2 | .225629 |
|   |   | 0 | 0 | 4 | 4 | -.631820 |   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.171870 |
|   |   | 0 | 0 | 4 | 5 | -.418216 |   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.243791 |
|   |   | 0 | 0 | 4 | 8 | .171217 |   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 0 | 0 | 5 | 5 | -.128628 |   |   | 1/2 | 1/2 | 11/2 | 15/2 | .140461 |
|   |   | 0 | 0 | 5 | 8 | -.309340 |   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.127713 |
|   |   | 0 | 0 | 8 | 8 | .101619 |   |   | 1 | 1 | 2 | 2 | -.861946 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .354634 |   |   | 1 | 1 | 2 | 4 | .112549 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.105413 |   |   | 1 | 1 | 2 | 6 | -.003710 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.375720 |   |   | 1 | 1 | 4 | 4 | -.322493 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .266721 |   |   | 1 | 1 | 4 | 6 | .089136 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.358482 |   |   | 1 | 1 | 6 | 6 | -.363896 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.522795 | 5 | 1 | 0 | 0 | 2 | 4 | -.260536 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.123644 |   |   | 0 | 0 | 2 | 5 | -.362889 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .017607 |   |   | 0 | 0 | 4 | 4 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .160529 |   |   | 0 | 0 | 4 | 5 | -.085592 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .418089 |   |   | 0 | 0 | 4 | 8 | .690567 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .160286 |   |   | 0 | 0 | 5 | 5 | .000000 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.084473 |   |   | 0 | 0 | 5 | 8 | -.562338 |
|   |   | 1 | 1 | 2 | 2 | -.073441 |   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 1 | 1 | 2 | 4 | -.617375 |   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.218466 |
|   |   | 1 | 1 | 2 | 6 | -.643936 |   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.382518 |
|   |   | 1 | 1 | 4 | 4 | .237255 |   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1 | 1 | 4 | 6 | .352823 |   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.078931 |
|   |   | 1 | 1 | 6 | 6 | -.134263 |   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.211881 |
| 4 | 3 | 0 | 0 | 2 | 2 | .168991 |   |   | 1/2 | 1/2 | 5/2 | 15/2 | .605228 |
|   |   | 0 | 0 | 2 | 4 | -.133378 |   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 0 | 0 | 2 | 5 | .112409 |   |   | 1/2 | 1/2 | 9/2 | 11/2 | .262071 |
|   |   | 0 | 0 | 4 | 4 | -.058647 |   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.283343 |
|   |   | 0 | 0 | 4 | 5 | .485139 |   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 0 | 0 | 4 | 8 | .319756 |   |   | 1/2 | 1/2 | 11/2 | 15/2 | .489452 |
|   |   | 0 | 0 | 5 | 5 | .474385 |   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 0 | 0 | 5 | 8 | -.483702 |   |   | 1 | 1 | 2 | 4 | .000000 |
|   |   | 0 | 0 | 8 | 8 | .375453 |   |   | 1 | 1 | 2 | 6 | .886405 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | -.233945 |   |   | 1 | 1 | 4 | 4 | .000000 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.443233 |   |   | 1 | 1 | 4 | 6 | .462910 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.066513 |   |   | 1 | 1 | 6 | 6 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.175950 | 5 | 2 | 0 | 0 | 2 | 4 | .492366 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .190486 |   |   | 0 | 0 | 2 | 5 | .369274 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.034792 |   |   | 0 | 0 | 4 | 4 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.208766 |   |   | 0 | 0 | 4 | 5 | .452911 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .270998 |   |   | 0 | 0 | 4 | 8 | .609023 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.026975 |   |   | 0 | 0 | 5 | 5 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.034450 |   |   | 0 | 0 | 5 | 8 | .212544 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .714765 |   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .214732 |   |   | 1/2 | 1/2 | 3/2 | 9/2 | .082572 |
|   |   | 1 | 1 | 2 | 2 | -.016202 |   |   | 1/2 | 1/2 | 3/2 | 11/2 | .389249 |
|   |   | 1 | 1 | 2 | 4 | -.006144 |   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1 | 1 | 2 | 6 | .351065 |   |   | 1/2 | 1/2 | 5/2 | 9/2 | .626497 |
|   |   | 1 | 1 | 4 | 4 | .704677 |   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.215610 |
|   |   | 1 | 1 | 4 | 6 | -.079824 |   |   | 1/2 | 1/2 | 5/2 | 15/2 | .400320 |
|   |   | 1 | 1 | 6 | 6 | -.611156 |   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| 4 | 4 | 0 | 0 | 2 | 2 | -.215387 |   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.416025 |
|   |   | 0 | 0 | 2 | 4 | -.462725 |   |   | 1/2 | 1/2 | 9/2 | 15/2 | .187414 |
|   |   | 0 | 0 | 2 | 5 | -.257437 |   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 0 | 0 | 4 | 4 | -.345901 |   |   | 1/2 | 1/2 | 11/2 | 15/2 | .184996 |
|   |   | 0 | 0 | 4 | 5 | -.273494 |   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 0 | 0 | 4 | 8 | .518935 |   |   | 1 | 1 | 2 | 4 | -.887625 |
|   |   | 0 | 0 | 5 | 5 | .267917 |   |   | 1 | 1 | 2 | 6 | .213201 |
|   |   | 0 | 0 | 5 | 8 | .371023 |   |   | 1 | 1 | 4 | 4 | .000000 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$V = 4$   $t = 0$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 5 | 2 | 1 | 1 | 4 | 6 | -.408248 |
|  |  | 1 | 1 | 6 | 6 | .000000 |
| 6 | 1 | 0 | 0 | 2 | 4 | .107787 |
|  |  | 0 | 0 | 2 | 5 | -.305615 |
|  |  | 0 | 0 | 2 | 8 | -.268062 |
|  |  | 0 | 0 | 4 | 4 | .073412 |
|  |  | 0 | 0 | 4 | 5 | .280975 |
|  |  | 0 | 0 | 4 | 8 | -.005598 |
|  |  | 0 | 0 | 5 | 5 | -.022154 |
|  |  | 0 | 0 | 5 | 8 | -.472458 |
|  |  | 0 | 0 | 8 | 8 | -.717669 |
|  |  | 1/2 | 1/2 | 3/2 | 9/2 | -.172844 |
|  |  | 1/2 | 1/2 | 3/2 | 11/2 | -.022122 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | .064868 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | .123102 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | -.077865 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | .177867 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | -.199040 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | -.240192 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | -.540995 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | .363601 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.355626 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .513726 |
|  |  | 1 | 1 | 2 | 4 | .018729 |
|  |  | 1 | 1 | 2 | 6 | -.579197 |
|  |  | 1 | 1 | 4 | 4 | -.420160 |
|  |  | 1 | 1 | 4 | 6 | -.465278 |
|  |  | 1 | 1 | 6 | 6 | -.520733 |
| 6 | 2 | 0 | 0 | 2 | 4 | .502984 |
|  |  | 0 | 0 | 2 | 5 | -.059964 |
|  |  | 0 | 0 | 2 | 8 | .251364 |
|  |  | 0 | 0 | 4 | 4 | -.030650 |
|  |  | 0 | 0 | 4 | 5 | .187338 |
|  |  | 0 | 0 | 4 | 8 | .122881 |
|  |  | 0 | 0 | 5 | 5 | -.624385 |
|  |  | 0 | 0 | 5 | 8 | .447003 |
|  |  | 0 | 0 | 8 | 8 | -.198557 |
|  |  | 1/2 | 1/2 | 3/2 | 9/2 | .356086 |
|  |  | 1/2 | 1/2 | 3/2 | 11/2 | -.232284 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | .185869 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | .381066 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | .281011 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | .042447 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | .159790 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | -.561314 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | .404509 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | .123904 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.196261 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .024809 |
|  |  | 1 | 1 | 2 | 4 | .220507 |
|  |  | 1 | 1 | 2 | 6 | -.636750 |
|  |  | 1 | 1 | 4 | 4 | .727540 |
|  |  | 1 | 1 | 4 | 6 | .000289 |
|  |  | 1 | 1 | 6 | 6 | .128887 |
| 6 | 3 | 0 | 0 | 2 | 4 | -.206238 |
|  |  | 0 | 0 | 2 | 5 | .370573 |
|  |  | 0 | 0 | 2 | 8 | .081839 |
|  |  | 0 | 0 | 4 | 4 | .300654 |
|  |  | 0 | 0 | 4 | 5 | -.292539 |
|  |  | 0 | 0 | 4 | 8 | -.653930 |
|  |  | 0 | 0 | 5 | 5 | -.158298 |
|  |  | 0 | 0 | 5 | 8 | .160484 |
|  |  | 0 | 0 | 8 | 8 | -.398790 |
|  |  | 1/2 | 1/2 | 3/2 | 9/2 | .192605 |
|  |  | 1/2 | 1/2 | 3/2 | 11/2 | .068038 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | -.265980 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | -.435827 |
| 6 | 3 | 1/2 | 1/2 | 5/2 | 11/2 | -.002833 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | -.287886 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | -.058880 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | -.078979 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | .119022 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | -.344305 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.670650 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .150033 |
|  |  | 1 | 1 | 2 | 4 | .141487 |
|  |  | 1 | 1 | 2 | 6 | .127976 |
|  |  | 1 | 1 | 4 | 4 | -.035241 |
|  |  | 1 | 1 | 4 | 6 | -.783090 |
|  |  | 1 | 1 | 6 | 6 | .590875 |
| 6 | 4 | 0 | 0 | 2 | 4 | -.158039 |
|  |  | 0 | 0 | 2 | 5 | .440570 |
|  |  | 0 | 0 | 2 | 8 | .510380 |
|  |  | 0 | 0 | 4 | 4 | -.181219 |
|  |  | 0 | 0 | 4 | 5 | .252829 |
|  |  | 0 | 0 | 4 | 8 | .059615 |
|  |  | 0 | 0 | 5 | 5 | -.297647 |
|  |  | 0 | 0 | 5 | 8 | -.572224 |
|  |  | 0 | 0 | 8 | 8 | .063894 |
|  |  | 1/2 | 1/2 | 3/2 | 9/2 | .367291 |
|  |  | 1/2 | 1/2 | 3/2 | 11/2 | -.545673 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | -.353882 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | -.153287 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | -.019008 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | .332926 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | -.250079 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | .325465 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | .174953 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | .204659 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | .109110 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .233543 |
|  |  | 1 | 1 | 2 | 4 | -.916569 |
|  |  | 1 | 1 | 2 | 6 | .016698 |
|  |  | 1 | 1 | 4 | 4 | .307510 |
|  |  | 1 | 1 | 4 | 6 | -.240605 |
|  |  | 1 | 1 | 6 | 6 | -.084676 |
| 7 | 1 | 0 | 0 | 2 | 5 | -.383982 |
|  |  | 0 | 0 | 2 | 8 | -.667042 |
|  |  | 0 | 0 | 4 | 4 | .000000 |
|  |  | 0 | 0 | 4 | 5 | -.512061 |
|  |  | 0 | 0 | 4 | 8 | .184065 |
|  |  | 0 | 0 | 5 | 5 | .000000 |
|  |  | 0 | 0 | 5 | 8 | -.333957 |
|  |  | 0 | 0 | 8 | 8 | .000000 |
|  |  | 1/2 | 1/2 | 3/2 | 11/2 | -.427153 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | -.489143 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | .259729 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | .168412 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | -.126907 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | -.373566 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | -.567052 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | .072467 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|  |  | 1 | 1 | 2 | 6 | .088359 |
|  |  | 1 | 1 | 4 | 4 | .000000 |
|  |  | 1 | 1 | 4 | 6 | -.996089 |
|  |  | 1 | 1 | 6 | 6 | .000000 |
| 7 | 2 | 0 | 0 | 2 | 5 | -.031314 |
|  |  | 0 | 0 | 2 | 8 | .329844 |
|  |  | 0 | 0 | 4 | 4 | .000000 |
|  |  | 0 | 0 | 4 | 5 | -.542647 |
|  |  | 0 | 0 | 4 | 8 | .568203 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D_{(v\bar{v}\alpha;J_\lambda J_\mu}^{T_\lambda T_\mu J}$

### v = 4   t = 0

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 2 | 0 | 0 | 5 | 5 | .000000 | | 8 | 3 | 0 | 0 | 8 | 8 | .135498 |
| | | 0 | 0 | 5 | 8 | .522400 | | | | 1/2 | 1/2 | 3/2 | 15/2 | .090743 |
| | | 0 | 0 | 8 | 8 | .000000 | | | | 1/2 | 1/2 | 5/2 | 11/2 | -.448647 |
| | | 1/2 | 1/2 | 3/2 | 11/2 | -.034835 | | | | 1/2 | 1/2 | 5/2 | 15/2 | .599628 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | .361437 | | | | 1/2 | 1/2 | 9/2 | 9/2 | -.061169 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | .297143 | | | | 1/2 | 1/2 | 9/2 | 11/2 | -.169410 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .475695 | | | | 1/2 | 1/2 | 9/2 | 15/2 | .027992 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | -.480301 | | | | 1/2 | 1/2 | 11/2 | 11/2 | -.597742 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 | | | | 1/2 | 1/2 | 11/2 | 15/2 | .165842 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.186023 | | | | 1/2 | 1/2 | 15/2 | 15/2 | .113598 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .280400 | | | | 1 | 1 | 2 | 6 | .809961 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 | | | | 1 | 1 | 4 | 4 | -.246001 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .457877 | | | | 1 | 1 | 4 | 6 | .164020 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 | | | | 1 | 1 | 6 | 6 | -.506502 |
| | | 1 | 1 | 2 | 6 | .996089 | | 9 | 1 | 0 | 0 | 2 | 8 | -.338062 |
| | | 1 | 1 | 4 | 4 | .000000 | | | | 0 | 0 | 4 | 5 | .491689 |
| | | 1 | 1 | 4 | 6 | .088359 | | | | 0 | 0 | 4 | 8 | .385450 |
| | | 1 | 1 | 6 | 6 | .000000 | | | | 0 | 0 | 5 | 5 | .000000 |
| 8 | 1 | 0 | 0 | 2 | 8 | .172077 | | | | 0 | 0 | 5 | 8 | -.703836 |
| | | 0 | 0 | 4 | 4 | -.092102 | | | | 0 | 0 | 8 | 8 | .000000 |
| | | 0 | 0 | 4 | 5 | -.196094 | | | | 1/2 | 1/2 | 3/2 | 15/2 | -.443203 |
| | | 0 | 0 | 4 | 8 | .186256 | | | | 1/2 | 1/2 | 5/2 | 15/2 | -.288675 |
| | | 0 | 0 | 5 | 5 | .093197 | | | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 0 | 0 | 5 | 8 | .524980 | | | | 1/2 | 1/2 | 9/2 | 11/2 | -.602194 |
| | | 0 | 0 | 8 | 8 | .777478 | | | | 1/2 | 1/2 | 9/2 | 15/2 | .170941 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | .130931 | | | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .125054 | | | | 1/2 | 1/2 | 11/2 | 15/2 | -.573045 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | -.105375 | | | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .173759 | | | | 1 | 1 | 4 | 6 | 1.00000 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .208993 | | | | 1 | 1 | 6 | 6 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .470903 | | 10 | 1 | 0 | 0 | 2 | 8 | .519099 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | -.244579 | | | | 0 | 0 | 4 | 8 | -.489415 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .413315 | | | | 0 | 0 | 5 | 5 | -.515079 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | -.655627 | | | | 0 | 0 | 5 | 8 | .145545 |
| | | 1 | 1 | 2 | 6 | .239046 | | | | 0 | 0 | 8 | 8 | -.452240 |
| | | 1 | 1 | 4 | 4 | .152120 | | | | 1/2 | 1/2 | 5/2 | 15/2 | -.316136 |
| | | 1 | 1 | 4 | 6 | .778246 | | | | 1/2 | 1/2 | 9/2 | 11/2 | -.295201 |
| | | 1 | 1 | 6 | 6 | .560401 | | | | 1/2 | 1/2 | 9/2 | 15/2 | -.677731 |
| 8 | 2 | 0 | 0 | 2 | 8 | -.687017 | | | | 1/2 | 1/2 | 11/2 | 11/2 | .302220 |
| | | 0 | 0 | 4 | 4 | -.059098 | | | | 1/2 | 1/2 | 11/2 | 15/2 | .486835 |
| | | 0 | 0 | 4 | 5 | .275466 | | | | 1/2 | 1/2 | 15/2 | 15/2 | .158901 |
| | | 0 | 0 | 4 | 8 | -.001631 | | | | 1 | 1 | 4 | 6 | .442498 |
| | | 0 | 0 | 5 | 5 | .374538 | | | | 1 | 1 | 6 | 6 | .896770 |
| | | 0 | 0 | 5 | 8 | .523996 | | 10 | 2 | 0 | 0 | 2 | 8 | -.247532 |
| | | 0 | 0 | 8 | 8 | -.183794 | | | | 0 | 0 | 4 | 8 | -.689984 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | .620755 | | | | 0 | 0 | 5 | 5 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .198243 | | | | 0 | 0 | 5 | 8 | -.628388 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | -.003690 | | | | 0 | 0 | 8 | 8 | .260343 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .456590 | | | | 1/2 | 1/2 | 5/2 | 15/2 | -.549157 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.398903 | | | | 1/2 | 1/2 | 9/2 | 11/2 | -.265892 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | -.379314 | | | | 1/2 | 1/2 | 9/2 | 15/2 | .597172 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | -.086727 | | | | 1/2 | 1/2 | 11/2 | 11/2 | -.214369 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.153798 | | | | 1/2 | 1/2 | 11/2 | 15/2 | .337812 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | -.180821 | | | | 1/2 | 1/2 | 15/2 | 15/2 | .333231 |
| | | 1 | 1 | 2 | 6 | -.357896 | | | | 1 | 1 | 4 | 6 | -.896770 |
| | | 1 | 1 | 4 | 4 | -.878473 | | | | 1 | 1 | 6 | 6 | .442498 |
| | | 1 | 1 | 4 | 6 | .313440 | | 12 | 1 | 0 | 0 | 4 | 8 | .359487 |
| | | 1 | 1 | 6 | 6 | -.044159 | | | | 0 | 0 | 5 | 8 | -.545108 |
| 8 | 3 | 0 | 0 | 2 | 8 | -.100429 | | | | 0 | 0 | 8 | 8 | -.757381 |
| | | 0 | 0 | 4 | 4 | -.542579 | | | | 1/2 | 1/2 | 9/2 | 15/2 | -.312893 |
| | | 0 | 0 | 4 | 5 | .040268 | | | | 1/2 | 1/2 | 11/2 | 15/2 | .711684 |
| | | 0 | 0 | 4 | 8 | -.742820 | | | | 1/2 | 1/2 | 15/2 | 15/2 | -.628971 |
| | | 0 | 0 | 5 | 5 | -.343355 | | | | 1 | 1 | 6 | 6 | -1.00000 |
| | | 0 | 0 | 5 | 8 | .076599 | | | | | | | | |

### v = 4   t = 1

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 1/2 | 1/2 | 3/2 | 3/2 | -.183095 | | 1 | 1 | 1/2 | 1/2 | 3/2 | 5/2 | .164317 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

V = 4   t = 1

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 1/2 | 1/2 | 5/2 | 5/2 | .206302 | 2 | 2 | 1 | 0 | 4 | 2 | .109646 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.480201 |   |   | 1 | 0 | 4 | 4 | .216534 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.712492 |   |   | 1 | 0 | 4 | 5 | -.151358 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.202309 |   |   | 1 | 0 | 6 | 4 | -.638243 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .343146 |   |   | 1 | 0 | 6 | 5 | .195047 |
|   |   | 1 | 0 | 2 | 2 | -.207020 |   |   | 1 | 0 | 6 | 8 | -.651073 |
|   |   | 1 | 0 | 4 | 4 | -.545108 |   |   | 1 | 1 | 2 | 2 | .000000 |
|   |   | 1 | 0 | 4 | 5 | -.552679 |   |   | 1 | 1 | 2 | 4 | .808290 |
|   |   | 1 | 0 | 6 | 5 | -.595437 |   |   | 1 | 1 | 4 | 4 | .000000 |
|   |   | 1 | 1 | 2 | 2 | -.528550 |   |   | 1 | 1 | 4 | 6 | .588784 |
|   |   | 1 | 1 | 4 | 4 | -.676763 |   |   | 1 | 1 | 6 | 6 | .000000 |
|   |   | 1 | 1 | 6 | 6 | .512471 |   |   | 3/2 | 1/2 | 7/2 | 3/2 | -.194202 |
|   |   | 3/2 | 1/2 | 7/2 | 5/2 | .821584 |   |   | 3/2 | 1/2 | 7/2 | 5/2 | -.675525 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | .570088 |   |   | 3/2 | 1/2 | 7/2 | 9/2 | .261489 |
| 1 | 2 | 1/2 | 1/2 | 3/2 | 3/2 | .428786 |   |   | 3/2 | 1/2 | 7/2 | 11/2 | -.661495 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .684105 | 3 | 1 | 1/2 | 1/2 | 3/2 | 3/2 | .291302 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .048617 |   |   | 1/2 | 1/2 | 3/2 | 5/2 | -.080563 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .276817 |   |   | 1/2 | 1/2 | 3/2 | 9/2 | .240906 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .076060 |   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.144180 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.498078 |   |   | 1/2 | 1/2 | 5/2 | 9/2 | .264443 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .123631 |   |   | 1/2 | 1/2 | 5/2 | 11/2 | .041494 |
|   |   | 1 | 0 | 2 | 2 | .574594 |   |   | 1/2 | 1/2 | 9/2 | 9/2 | .319641 |
|   |   | 1 | 0 | 4 | 4 | -.523723 |   |   | 1/2 | 1/2 | 9/2 | 11/2 | .237341 |
|   |   | 1 | 0 | 4 | 5 | .575247 |   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.073946 |
|   |   | 1 | 0 | 6 | 5 | -.254257 |   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.005109 |
|   |   | 1 | 1 | 2 | 2 | -.825198 |   |   | 1/2 | 1/2 | 11/2 | 15/2 | .462119 |
|   |   | 1 | 1 | 4 | 4 | .551268 |   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.616950 |
|   |   | 1 | 1 | 6 | 6 | -.123092 |   |   | 1 | 0 | 2 | 2 | .039501 |
|   |   | 3/2 | 1/2 | 7/2 | 5/2 | .570088 |   |   | 1 | 0 | 2 | 4 | .076095 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | -.821584 |   |   | 1 | 0 | 2 | 5 | -.125988 |
| 2 | 1 | 1/2 | 1/2 | 3/2 | 3/2 | .000000 |   |   | 1 | 0 | 4 | 2 | -.144436 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | -.545108 |   |   | 1 | 0 | 4 | 4 | .352453 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |   |   | 1 | 0 | 4 | 5 | .526207 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.457738 |   |   | 1 | 0 | 6 | 4 | -.270148 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |   |   | 1 | 0 | 6 | 5 | .507479 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .677855 |   |   | 1 | 0 | 6 | 8 | .473586 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |   |   | 1 | 1 | 2 | 2 | .026696 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .183973 |   |   | 1 | 1 | 2 | 4 | -.104561 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |   |   | 1 | 1 | 4 | 4 | -.557582 |
|   |   | 1 | 0 | 2 | 2 | -.624500 |   |   | 1 | 1 | 4 | 6 | -.094621 |
|   |   | 1 | 0 | 2 | 4 | .247207 |   |   | 1 | 1 | 6 | 6 | -.817621 |
|   |   | 1 | 0 | 4 | 2 | -.289897 |   |   | 3/2 | 1/2 | 7/2 | 3/2 | -.449489 |
|   |   | 1 | 0 | 4 | 4 | .528463 |   |   | 3/2 | 1/2 | 7/2 | 5/2 | -.455420 |
|   |   | 1 | 0 | 4 | 5 | .042876 |   |   | 3/2 | 1/2 | 7/2 | 9/2 | -.208360 |
|   |   | 1 | 0 | 6 | 4 | -.049363 |   |   | 3/2 | 1/2 | 7/2 | 11/2 | .739688 |
|   |   | 1 | 0 | 6 | 5 | -.414885 | 3 | 2 | 1/2 | 1/2 | 3/2 | 3/2 | .400588 |
|   |   | 1 | 0 | 6 | 8 | .095764 |   |   | 1/2 | 1/2 | 3/2 | 5/2 | -.070680 |
|   |   | 1 | 1 | 2 | 2 | .000000 |   |   | 1/2 | 1/2 | 3/2 | 9/2 | .101934 |
|   |   | 1 | 1 | 2 | 4 | .588784 |   |   | 1/2 | 1/2 | 5/2 | 5/2 | .478714 |
|   |   | 1 | 1 | 4 | 4 | .000000 |   |   | 1/2 | 1/2 | 5/2 | 9/2 | .431828 |
|   |   | 1 | 1 | 4 | 6 | -.808290 |   |   | 1/2 | 1/2 | 5/2 | 11/2 | .332648 |
|   |   | 1 | 1 | 6 | 6 | .000000 |   |   | 1/2 | 1/2 | 9/2 | 9/2 | .185967 |
|   |   | 3/2 | 1/2 | 7/2 | 3/2 | .742679 |   |   | 1/2 | 1/2 | 9/2 | 11/2 | .075516 |
|   |   | 3/2 | 1/2 | 7/2 | 5/2 | -.325832 |   |   | 1/2 | 1/2 | 9/2 | 15/2 | .260760 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | .495729 |   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.085776 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | .310669 |   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.408962 |
| 2 | 2 | 1/2 | 1/2 | 3/2 | 3/2 | .000000 |   |   | 1/2 | 1/2 | 15/2 | 15/2 | .122298 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | -.080178 |   |   | 1 | 0 | 2 | 2 | .124897 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |   |   | 1 | 0 | 2 | 4 | -.316228 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.424366 |   |   | 1 | 0 | 2 | 5 | -.618765 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |   |   | 1 | 0 | 4 | 2 | -.301965 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.108012 |   |   | 1 | 0 | 4 | 4 | .281876 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |   |   | 1 | 0 | 4 | 5 | .256752 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.895443 |   |   | 1 | 0 | 6 | 4 | .341720 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |   |   | 1 | 0 | 6 | 5 | -.363405 |
|   |   | 1 | 0 | 2 | 2 | -.128307 |   |   | 1 | 0 | 6 | 8 | -.127031 |
|   |   | 1 | 0 | 2 | 4 | -.180073 |   |   | 1 | 1 | 2 | 2 | .532916 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D_{(vt)\alpha;J_\lambda J_\mu}^{T_\lambda T_\mu J}$

v = 4  t = 1

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 2 | 1 | 1 | 2 | 4 | .390282 | 3 | 4 | 3/2 | 1/2 | 7/2 | 11/2 | -.187180 |
| | | 1 | 1 | 4 | 4 | -.500053 | 4 | 1 | 1/2 | 1/2 | 3/2 | 5/2 | .459616 |
| | | 1 | 1 | 4 | 6 | -.430395 | | | 1/2 | 1/2 | 3/2 | 9/2 | -.560582 |
| | | 1 | 1 | 6 | 6 | .358313 | | | 1/2 | 1/2 | 3/2 | 11/2 | .116143 |
| | | 3/2 | 1/2 | 7/2 | 3/2 | .061133 | | | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
| | | 3/2 | 1/2 | 7/2 | 5/2 | .354431 | | | 1/2 | 1/2 | 5/2 | 9/2 | .180954 |
| | | 3/2 | 1/2 | 7/2 | 9/2 | .799760 | | | 1/2 | 1/2 | 5/2 | 11/2 | .034165 |
| | | 3/2 | 1/2 | 7/2 | 11/2 | .480650 | | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| 3 | 3 | 1/2 | 1/2 | 3/2 | 3/2 | -.174260 | | | 1/2 | 1/2 | 9/2 | 11/2 | .475928 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | .025647 | | | 1/2 | 1/2 | 9/2 | 15/2 | -.260038 |
| | | 1/2 | 1/2 | 3/2 | 9/2 | -.196636 | | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | .268413 | | | 1/2 | 1/2 | 11/2 | 15/2 | -.564655 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | .195627 | | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .419758 | | | 1 | 0 | 2 | 2 | -.298410 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | -.414309 | | | 1 | 0 | 2 | 4 | -.035441 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .175532 | | | 1 | 0 | 2 | 5 | -.232944 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | -.410116 | | | 1 | 0 | 4 | 2 | .092426 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .491542 | | | 1 | 0 | 4 | 4 | .320887 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .068465 | | | 1 | 0 | 4 | 5 | -.696247 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | -.163815 | | | 1 | 0 | 4 | 8 | -.164064 |
| | | 1 | 0 | 2 | 2 | .118001 | | | 1 | 0 | 6 | 2 | -.443034 |
| | | 1 | 0 | 2 | 4 | -.362385 | | | 1 | 0 | 6 | 4 | -.091463 |
| | | 1 | 0 | 2 | 5 | -.026659 | | | 1 | 0 | 6 | 5 | .113811 |
| | | 1 | 0 | 4 | 2 | .510764 | | | 1 | 0 | 6 | 8 | .121024 |
| | | 1 | 0 | 4 | 4 | .208689 | | | 1 | 1 | 2 | 2 | .000000 |
| | | 1 | 0 | 4 | 5 | -.320509 | | | 1 | 1 | 2 | 4 | .996259 |
| | | 1 | 0 | 6 | 4 | .437954 | | | 1 | 1 | 2 | 6 | -.070727 |
| | | 1 | 0 | 6 | 5 | .156237 | | | 1 | 1 | 4 | 4 | .000000 |
| | | 1 | 0 | 6 | 8 | .480282 | | | 1 | 1 | 4 | 6 | .049659 |
| | | 1 | 1 | 2 | 2 | .807877 | | | 1 | 1 | 6 | 6 | .000000 |
| | | 1 | 1 | 2 | 4 | -.077708 | | | 3/2 | 1/2 | 7/2 | 3/2 | .632333 |
| | | 1 | 1 | 4 | 4 | .237353 | | | 3/2 | 1/2 | 7/2 | 5/2 | .476267 |
| | | 1 | 1 | 4 | 6 | .501264 | | | 3/2 | 1/2 | 7/2 | 9/2 | -.524374 |
| | | 1 | 1 | 6 | 6 | -.183559 | | | 3/2 | 1/2 | 7/2 | 11/2 | .055956 |
| | | 3/2 | 1/2 | 7/2 | 3/2 | .345513 | | | 3/2 | 1/2 | 7/2 | 15/2 | -.308586 |
| | | 3/2 | 1/2 | 7/2 | 5/2 | .616988 | 4 | 2 | 1/2 | 1/2 | 3/2 | 5/2 | .349091 |
| | | 3/2 | 1/2 | 7/2 | 9/2 | -.559594 | | | 1/2 | 1/2 | 3/2 | 9/2 | .028451 |
| | | 3/2 | 1/2 | 7/2 | 11/2 | .432204 | | | 1/2 | 1/2 | 3/2 | 11/2 | -.438204 |
| 3 | 4 | 1/2 | 1/2 | 3/2 | 3/2 | .050703 | | | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | -.253192 | | | 1/2 | 1/2 | 5/2 | 9/2 | -.507593 |
| | | 1/2 | 1/2 | 3/2 | 9/2 | .100656 | | | 1/2 | 1/2 | 5/2 | 11/2 | -.542646 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | -.002689 | | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | -.414677 | | | 1/2 | 1/2 | 9/2 | 11/2 | -.225375 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .364007 | | | 1/2 | 1/2 | 9/2 | 15/2 | -.099425 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .429859 | | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.500938 | | | 1/2 | 1/2 | 11/2 | 15/2 | -.269276 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | -.045986 | | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .415152 | | | 1 | 0 | 2 | 2 | .439040 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.060699 | | | 1 | 0 | 2 | 4 | -.411196 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | -.069727 | | | 1 | 0 | 2 | 5 | -.385353 |
| | | 1 | 0 | 2 | 2 | -.407670 | | | 1 | 0 | 4 | 2 | -.117580 |
| | | 1 | 0 | 2 | 4 | -.376561 | | | 1 | 0 | 4 | 4 | .541700 |
| | | 1 | 0 | 2 | 5 | .092103 | | | 1 | 0 | 4 | 5 | .165968 |
| | | 1 | 0 | 4 | 2 | -.451627 | | | 1 | 0 | 4 | 8 | .138988 |
| | | 1 | 0 | 4 | 4 | -.322072 | | | 1 | 0 | 6 | 2 | -.096205 |
| | | 1 | 0 | 4 | 5 | -.032677 | | | 1 | 0 | 6 | 4 | .285380 |
| | | 1 | 0 | 6 | 4 | .357446 | | | 1 | 0 | 6 | 5 | .081093 |
| | | 1 | 0 | 6 | 5 | .492502 | | | 1 | 0 | 6 | 8 | -.195615 |
| | | 1 | 0 | 6 | 8 | -.066579 | | | 1 | 1 | 2 | 2 | .000000 |
| | | 1 | 1 | 2 | 2 | .016263 | | | 1 | 1 | 2 | 4 | -.086311 |
| | | 1 | 1 | 2 | 4 | -.747395 | | | 1 | 1 | 2 | 6 | -.785560 |
| | | 1 | 1 | 4 | 4 | -.480098 | | | 1 | 1 | 4 | 4 | .000000 |
| | | 1 | 1 | 4 | 6 | .230573 | | | 1 | 1 | 4 | 6 | .612736 |
| | | 1 | 1 | 6 | 6 | .396854 | | | 1 | 1 | 6 | 6 | .000000 |
| | | 3/2 | 1/2 | 7/2 | 3/2 | -.821488 | | | 3/2 | 1/2 | 7/2 | 3/2 | -.056273 |
| | | 3/2 | 1/2 | 7/2 | 5/2 | .535067 | | | 3/2 | 1/2 | 7/2 | 5/2 | .544245 |
| | | 3/2 | 1/2 | 7/2 | 9/2 | -.061839 | | | 3/2 | 1/2 | 7/2 | 9/2 | .524334 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

V = 4    t = 1

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 4 | 2 | 3/2 | 1/2 | 7/2 | 11/2 | .650668 |
|   |   | 3/2 | 1/2 | 7/2 | 15/2 | -.048336 |
| 4 | 3 | 1/2 | 1/2 | 3/2 | 5/2 | .041354 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | .239742 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.325848 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .079862 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .269063 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.007598 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.837802 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .232151 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 2 | .040518 |
|   |   | 1 | 0 | 2 | 4 | -.042078 |
|   |   | 1 | 0 | 2 | 5 | .142323 |
|   |   | 1 | 0 | 4 | 2 | -.350741 |
|   |   | 1 | 0 | 4 | 4 | -.047227 |
|   |   | 1 | 0 | 4 | 5 | -.026112 |
|   |   | 1 | 0 | 4 | 8 | .650176 |
|   |   | 1 | 0 | 6 | 2 | -.404489 |
|   |   | 1 | 0 | 6 | 4 | -.099800 |
|   |   | 1 | 0 | 6 | 5 | -.400426 |
|   |   | 1 | 0 | 6 | 8 | .306202 |
|   |   | 1 | 1 | 2 | 2 | .000000 |
|   |   | 1 | 1 | 2 | 4 | .004327 |
|   |   | 1 | 1 | 2 | 6 | .614730 |
|   |   | 1 | 1 | 4 | 4 | .000000 |
|   |   | 1 | 1 | 4 | 6 | .788726 |
|   |   | 1 | 1 | 6 | 6 | .000000 |
|   |   | 3/2 | 1/2 | 7/2 | 3/2 | .607953 |
|   |   | 3/2 | 1/2 | 7/2 | 5/2 | -.144591 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | .166668 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | .095426 |
|   |   | 3/2 | 1/2 | 7/2 | 15/2 | .756704 |
| 5 | 1 | 1/2 | 1/2 | 3/2 | 9/2 | -.089153 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .004289 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.300976 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.248593 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.150445 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .367272 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .208063 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .185655 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .296696 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.618684 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.203816 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .303363 |
|   |   | 1 | 0 | 2 | 4 | .374136 |
|   |   | 1 | 0 | 2 | 5 | -.466664 |
|   |   | 1 | 0 | 4 | 2 | -.164515 |
|   |   | 1 | 0 | 4 | 4 | .084761 |
|   |   | 1 | 0 | 4 | 5 | -.134710 |
|   |   | 1 | 0 | 4 | 8 | -.265589 |
|   |   | 1 | 0 | 6 | 2 | .049103 |
|   |   | 1 | 0 | 6 | 4 | -.454836 |
|   |   | 1 | 0 | 6 | 5 | -.336830 |
|   |   | 1 | 0 | 6 | 8 | -.443364 |
|   |   | 1 | 1 | 2 | 4 | -.011056 |
|   |   | 1 | 1 | 2 | 6 | .629063 |
|   |   | 1 | 1 | 4 | 4 | .147405 |
|   |   | 1 | 1 | 4 | 6 | -.653028 |
|   |   | 1 | 1 | 6 | 6 | .394948 |
|   |   | 3/2 | 1/2 | 7/2 | 3/2 | .419570 |
|   |   | 3/2 | 1/2 | 7/2 | 5/2 | .424470 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | .322424 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | -.522428 |

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 5 | 1 | 3/2 | 1/2 | 7/2 | 15/2 | -.516621 |
| 5 | 2 | 1/2 | 1/2 | 3/2 | 9/2 | .123846 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.089770 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .060954 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.103782 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.064150 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.265109 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .125659 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.512961 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.059030 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.194342 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .522684 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .542538 |
|   |   | 1 | 0 | 2 | 4 | .168457 |
|   |   | 1 | 0 | 2 | 5 | .218032 |
|   |   | 1 | 0 | 4 | 2 | .043991 |
|   |   | 1 | 0 | 4 | 4 | .176267 |
|   |   | 1 | 0 | 4 | 5 | -.195292 |
|   |   | 1 | 0 | 4 | 8 | .342739 |
|   |   | 1 | 0 | 6 | 2 | -.204204 |
|   |   | 1 | 0 | 6 | 4 | .327611 |
|   |   | 1 | 0 | 6 | 5 | .212159 |
|   |   | 1 | 0 | 6 | 8 | -.735820 |
|   |   | 1 | 1 | 2 | 4 | .562250 |
|   |   | 1 | 1 | 2 | 6 | .009467 |
|   |   | 1 | 1 | 4 | 4 | .484429 |
|   |   | 1 | 1 | 4 | 6 | -.263671 |
|   |   | 1 | 1 | 6 | 6 | -.616110 |
|   |   | 3/2 | 1/2 | 7/2 | 3/2 | -.287572 |
|   |   | 3/2 | 1/2 | 7/2 | 5/2 | .030415 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | .246749 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | .622518 |
|   |   | 3/2 | 1/2 | 7/2 | 15/2 | -.684079 |
| 5 | 3 | 1/2 | 1/2 | 3/2 | 9/2 | -.310487 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.548289 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.036900 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.039355 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .179594 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .031973 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.381614 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.341819 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .359984 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.210378 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .094688 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.348581 |
|   |   | 1 | 0 | 2 | 4 | .315806 |
|   |   | 1 | 0 | 2 | 5 | .207460 |
|   |   | 1 | 0 | 4 | 2 | -.238871 |
|   |   | 1 | 0 | 4 | 4 | .296017 |
|   |   | 1 | 0 | 4 | 5 | .559248 |
|   |   | 1 | 0 | 4 | 8 | -.218467 |
|   |   | 1 | 0 | 6 | 2 | -.513588 |
|   |   | 1 | 0 | 6 | 4 | -.159293 |
|   |   | 1 | 0 | 6 | 5 | .237604 |
|   |   | 1 | 0 | 6 | 8 | .080331 |
|   |   | 1 | 1 | 2 | 4 | .127050 |
|   |   | 1 | 1 | 2 | 6 | .071465 |
|   |   | 1 | 1 | 4 | 4 | .713593 |
|   |   | 1 | 1 | 4 | 6 | .506735 |
|   |   | 1 | 1 | 6 | 6 | .461257 |
|   |   | 3/2 | 1/2 | 7/2 | 3/2 | -.756417 |
|   |   | 3/2 | 1/2 | 7/2 | 5/2 | .516095 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | .243528 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | -.243104 |
|   |   | 3/2 | 1/2 | 7/2 | 15/2 | .207542 |
| 5 | 4 | 1/2 | 1/2 | 3/2 | 9/2 | -.300627 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .078979 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

V = 4   $t$ = 1

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 5 | 4 | 1/2 | 1/2 | 5/2 | 5/2 | .336304 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | .331777 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | -.244940 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | -.176184 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | -.116957 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | .131667 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | .594927 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | .211068 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.105121 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .385511 |
|  |  | 1 | 0 | 2 | 4 | -.245952 |
|  |  | 1 | 0 | 2 | 5 | .247969 |
|  |  | 1 | 0 | 4 | 2 | -.148440 |
|  |  | 1 | 0 | 4 | 4 | -.345747 |
|  |  | 1 | 0 | 4 | 5 | .227136 |
|  |  | 1 | 0 | 4 | 8 | -.323780 |
|  |  | 1 | 0 | 6 | 2 | -.215649 |
|  |  | 1 | 0 | 6 | 4 | .325334 |
|  |  | 1 | 0 | 6 | 5 | -.602376 |
|  |  | 1 | 0 | 6 | 8 | -.254610 |
|  |  | 1 | 1 | 2 | 4 | -.621470 |
|  |  | 1 | 1 | 2 | 6 | -.495528 |
|  |  | 1 | 1 | 4 | 4 | .464214 |
|  |  | 1 | 1 | 4 | 6 | -.388374 |
|  |  | 1 | 1 | 6 | 6 | -.043549 |
|  |  | 3/2 | 1/2 | 7/2 | 3/2 | -.138191 |
|  |  | 3/2 | 1/2 | 7/2 | 5/2 | -.664216 |
|  |  | 3/2 | 1/2 | 7/2 | 9/2 | .684860 |
|  |  | 3/2 | 1/2 | 7/2 | 11/2 | -.263442 |
|  |  | 3/2 | 1/2 | 7/2 | 15/2 | .035857 |
| 6 | 1 | 1/2 | 1/2 | 3/2 | 9/2 | .358100 |
|  |  | 1/2 | 1/2 | 3/2 | 11/2 | -.198267 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | -.312628 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | .442366 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | -.173970 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | -.382529 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | -.477028 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | -.338228 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.143120 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|  |  | 1 | 0 | 2 | 4 | -.113669 |
|  |  | 1 | 0 | 2 | 5 | -.287543 |
|  |  | 1 | 0 | 2 | 8 | -.466308 |
|  |  | 1 | 0 | 4 | 2 | -.390524 |
|  |  | 1 | 0 | 4 | 4 | .525908 |
|  |  | 1 | 0 | 4 | 5 | .001548 |
|  |  | 1 | 0 | 4 | 8 | .248950 |
|  |  | 1 | 0 | 6 | 2 | .151459 |
|  |  | 1 | 0 | 6 | 4 | -.106149 |
|  |  | 1 | 0 | 6 | 5 | -.400822 |
|  |  | 1 | 0 | 6 | 8 | .031986 |
|  |  | 1 | 1 | 2 | 4 | .338414 |
|  |  | 1 | 1 | 2 | 6 | .077713 |
|  |  | 1 | 1 | 4 | 4 | .000000 |
|  |  | 1 | 1 | 4 | 6 | -.937783 |
|  |  | 1 | 1 | 6 | 6 | .000000 |
|  |  | 3/2 | 1/2 | 7/2 | 5/2 | -.351633 |
|  |  | 3/2 | 1/2 | 7/2 | 9/2 | -.445794 |
|  |  | 3/2 | 1/2 | 7/2 | 11/2 | -.640845 |
|  |  | 3/2 | 1/2 | 7/2 | 15/2 | -.516662 |
| 6 | 2 | 1/2 | 1/2 | 3/2 | 9/2 | .006641 |
|  |  | 1/2 | 1/2 | 3/2 | 11/2 | .268682 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | -.249056 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | -.024917 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | .518798 |
| 6 | 2 | 1/2 | 1/2 | 5/2 | 15/2 | .537241 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | -.489846 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | -.027200 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.258163 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|  |  | 1 | 0 | 2 | 4 | .282546 |
|  |  | 1 | 0 | 2 | 5 | -.309736 |
|  |  | 1 | 0 | 2 | 8 | .401222 |
|  |  | 1 | 0 | 4 | 2 | -.215874 |
|  |  | 1 | 0 | 4 | 4 | .070314 |
|  |  | 1 | 0 | 4 | 5 | -.085863 |
|  |  | 1 | 0 | 4 | 8 | .232623 |
|  |  | 1 | 0 | 6 | 2 | .307967 |
|  |  | 1 | 0 | 6 | 4 | .610171 |
|  |  | 1 | 0 | 6 | 5 | .098433 |
|  |  | 1 | 0 | 6 | 8 | .270886 |
|  |  | 1 | 1 | 2 | 4 | -.841192 |
|  |  | 1 | 1 | 2 | 6 | -.421678 |
|  |  | 1 | 1 | 4 | 4 | .000000 |
|  |  | 1 | 1 | 4 | 6 | -.338502 |
|  |  | 1 | 1 | 6 | 6 | .000000 |
|  |  | 3/2 | 1/2 | 7/2 | 5/2 | -.553560 |
|  |  | 3/2 | 1/2 | 7/2 | 9/2 | -.607086 |
|  |  | 3/2 | 1/2 | 7/2 | 11/2 | .486717 |
|  |  | 3/2 | 1/2 | 7/2 | 15/2 | .296859 |
| 6 | 3 | 1/2 | 1/2 | 3/2 | 9/2 | -.358100 |
|  |  | 1/2 | 1/2 | 3/2 | 11/2 | .198267 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | .312628 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | -.442366 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | .173970 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | .382529 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | .477028 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | .338228 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | .143120 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|  |  | 1 | 0 | 2 | 4 | .113669 |
|  |  | 1 | 0 | 2 | 5 | .287543 |
|  |  | 1 | 0 | 2 | 8 | .466308 |
|  |  | 1 | 0 | 4 | 2 | .390524 |
|  |  | 1 | 0 | 4 | 4 | -.525908 |
|  |  | 1 | 0 | 4 | 5 | -.001548 |
|  |  | 1 | 0 | 4 | 8 | -.248950 |
|  |  | 1 | 0 | 6 | 2 | -.151459 |
|  |  | 1 | 0 | 6 | 4 | .106149 |
|  |  | 1 | 0 | 6 | 5 | .400822 |
|  |  | 1 | 0 | 6 | 8 | -.031986 |
|  |  | 1 | 1 | 2 | 4 | -.338414 |
|  |  | 1 | 1 | 2 | 6 | -.077713 |
|  |  | 1 | 1 | 4 | 4 | .000000 |
|  |  | 1 | 1 | 4 | 6 | .937783 |
|  |  | 1 | 1 | 6 | 6 | .000000 |
|  |  | 3/2 | 1/2 | 7/2 | 5/2 | .351633 |
|  |  | 3/2 | 1/2 | 7/2 | 9/2 | .445794 |
|  |  | 3/2 | 1/2 | 7/2 | 11/2 | .640845 |
|  |  | 3/2 | 1/2 | 7/2 | 15/2 | .516662 |
| 7 | 1 | 1/2 | 1/2 | 3/2 | 11/2 | -.452631 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | .108891 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | -.251486 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | .226651 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | -.455196 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | -.386492 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | .269016 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | -.108889 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$$V = 4 \quad t = 1$$

**Left half**

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 7 | 1 | 1/2 | 1/2 | 11/2 | 11/2 | -.396900 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.254171 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.075595 |
|   |   | 1 | 0 | 2 | 5 | -.502923 |
|   |   | 1 | 0 | 2 | 8 | .359427 |
|   |   | 1 | 0 | 4 | 4 | -.383414 |
|   |   | 1 | 0 | 4 | 5 | .034757 |
|   |   | 1 | 0 | 4 | 8 | -.484009 |
|   |   | 1 | 0 | 6 | 2 | -.098945 |
|   |   | 1 | 0 | 6 | 4 | .204896 |
|   |   | 1 | 0 | 6 | 5 | .414065 |
|   |   | 1 | 0 | 6 | 8 | .110355 |
|   |   | 1 | 1 | 2 | 6 | .552231 |
|   |   | 1 | 1 | 4 | 4 | -.495101 |
|   |   | 1 | 1 | 4 | 6 | -.437060 |
|   |   | 1 | 1 | 6 | 6 | .508817 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | .338520 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | .527697 |
|   |   | 3/2 | 1/2 | 7/2 | 15/2 | .779064 |
| 7 | 2 | 1/2 | 1/2 | 3/2 | 11/2 | .070873 |
|   |   | 1/2 | 1/2 | 3/2 | 15/2 | -.147746 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.034170 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .142225 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .262101 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.125374 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .116281 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .143985 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .339806 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.598586 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.599426 |
|   |   | 1 | 0 | 2 | 5 | .078748 |
|   |   | 1 | 0 | 2 | 8 | .120078 |
|   |   | 1 | 0 | 4 | 4 | .003702 |
|   |   | 1 | 0 | 4 | 5 | .386637 |
|   |   | 1 | 0 | 4 | 8 | -.105341 |
|   |   | 1 | 0 | 6 | 2 | .218471 |
|   |   | 1 | 0 | 6 | 4 | -.318211 |
|   |   | 1 | 0 | 6 | 5 | -.164734 |
|   |   | 1 | 0 | 6 | 8 | .801659 |
|   |   | 1 | 1 | 2 | 6 | -.683699 |
|   |   | 1 | 1 | 4 | 4 | -.133023 |
|   |   | 1 | 1 | 4 | 6 | .111941 |
|   |   | 1 | 1 | 6 | 6 | .708753 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | -.557418 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | -.554571 |
|   |   | 3/2 | 1/2 | 7/2 | 15/2 | .617848 |
| 7 | 3 | 1/2 | 1/2 | 3/2 | 11/2 | .036425 |
|   |   | 1/2 | 1/2 | 3/2 | 15/2 | -.564606 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.422322 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .152716 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.323700 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .234460 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.102067 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .493954 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .093181 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.062162 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .226950 |
|   |   | 1 | 0 | 2 | 5 | .040472 |
|   |   | 1 | 0 | 2 | 8 | .436875 |
|   |   | 1 | 0 | 4 | 4 | -.308120 |
|   |   | 1 | 0 | 4 | 5 | .270624 |
|   |   | 1 | 0 | 4 | 8 | .403987 |
|   |   | 1 | 0 | 6 | 2 | .544073 |
|   |   | 1 | 0 | 6 | 4 | .346309 |
|   |   | 1 | 0 | 6 | 5 | -.156987 |
|   |   | 1 | 0 | 6 | 8 | -.188495 |
|   |   | 1 | 1 | 2 | 6 | .073312 |

**Right half**

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 7 | 3 | 1 | 1 | 4 | 4 | .818344 |
|   |   | 1 | 1 | 4 | 6 | -.484215 |
|   |   | 1 | 1 | 6 | 6 | .300789 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | -.758082 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | .643418 |
|   |   | 3/2 | 1/2 | 7/2 | 15/2 | -.106414 |
| 8 | 1 | 1/2 | 1/2 | 3/2 | 15/2 | -.072002 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.024272 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.424956 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .618071 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.648364 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.106070 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 8 | .155954 |
|   |   | 1 | 0 | 4 | 4 | .389346 |
|   |   | 1 | 0 | 4 | 5 | .477609 |
|   |   | 1 | 0 | 4 | 8 | -.395912 |
|   |   | 1 | 0 | 6 | 2 | .396360 |
|   |   | 1 | 0 | 6 | 4 | .117374 |
|   |   | 1 | 0 | 6 | 5 | .000000 |
|   |   | 1 | 0 | 6 | 8 | -.518029 |
|   |   | 1 | 1 | 2 | 6 | -.858678 |
|   |   | 1 | 1 | 4 | 4 | .000000 |
|   |   | 1 | 1 | 4 | 6 | -.512516 |
|   |   | 1 | 1 | 6 | 6 | .000000 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | .407188 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | .852312 |
|   |   | 3/2 | 1/2 | 7/2 | 15/2 | -.328273 |
| 8 | 2 | 1/2 | 1/2 | 3/2 | 15/2 | -.401107 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .463588 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .391588 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.131794 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.438690 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .510920 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 8 | -.548703 |
|   |   | 1 | 0 | 4 | 4 | -.232388 |
|   |   | 1 | 0 | 4 | 5 | .161251 |
|   |   | 1 | 0 | 4 | 8 | -.181376 |
|   |   | 1 | 0 | 6 | 2 | .252345 |
|   |   | 1 | 0 | 6 | 4 | -.209759 |
|   |   | 1 | 0 | 6 | 5 | .685344 |
|   |   | 1 | 0 | 6 | 8 | .092991 |
|   |   | 1 | 1 | 2 | 6 | .512516 |
|   |   | 1 | 1 | 4 | 4 | .000000 |
|   |   | 1 | 1 | 4 | 6 | -.858678 |
|   |   | 1 | 1 | 6 | 6 | .000000 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | .833269 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | -.199497 |
|   |   | 3/2 | 1/2 | 7/2 | 15/2 | .515619 |
| 9 | 1 | 1/2 | 1/2 | 3/2 | 15/2 | -.483318 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .251843 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .469886 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.266660 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.266396 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.382316 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.196401 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.394173 |
|   |   | 1 | 0 | 2 | 8 | .394920 |
|   |   | 1 | 0 | 4 | 5 | .349742 |
|   |   | 1 | 0 | 4 | 8 | -.644424 |
|   |   | 1 | 0 | 6 | 4 | .089722 |
|   |   | 1 | 0 | 6 | 5 | -.516125 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

### V = 4  t = 1

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 1 | 1 | 0 | 6 | 8 | .178890 | 10 | 1 | 1/2 | 1/2 | 5/2 | 15/2 | .250000 |
|   |   | 1 | 1 | 4 | 6 | .890400 |    |   | 1/2 | 1/2 | 9/2 | 11/2 | -.363136 |
|   |   | 1 | 1 | 6 | 6 | -.455179 |    |   | 1/2 | 1/2 | 9/2 | 15/2 | .492641 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | .264155 |    |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 3/2 | 1/2 | 7/2 | 15/2 | -.964486 |    |   | 1/2 | 1/2 | 11/2 | 15/2 | .750291 |
| 9 | 2 | 1/2 | 1/2 | 3/2 | 15/2 | .247076 |    |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .563256 |    |   | 1 | 0 | 2 | 8 | -.417855 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |    |   | 1 | 0 | 4 | 8 | -.446245 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .223807 |    |   | 1 | 0 | 6 | 4 | .335888 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .174709 |    |   | 1 | 0 | 6 | 5 | -.258199 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.253125 |    |   | 1 | 0 | 6 | 8 | .668413 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.604459 |    |   | 1 | 1 | 4 | 6 | -1.00000 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .334127 |    |   | 1 | 1 | 6 | 6 | .000000 |
|   |   | 1 | 0 | 2 | 8 | .465891 |    |   | 3/2 | 1/2 | 7/2 | 15/2 | -1.00000 |
|   |   | 1 | 0 | 4 | 5 | .248321 | 11 | 1 | 1/2 | 1/2 | 9/2 | 15/2 | -.494727 |
|   |   | 1 | 0 | 4 | 8 | .329435 |    |   | 1/2 | 1/2 | 11/2 | 11/2 | -.428571 |
|   |   | 1 | 0 | 6 | 4 | .611556 |    |   | 1/2 | 1/2 | 11/2 | 15/2 | .204313 |
|   |   | 1 | 0 | 6 | 5 | .341027 |    |   | 1/2 | 1/2 | 15/2 | 15/2 | .727892 |
|   |   | 1 | 0 | 6 | 8 | .349936 |    |   | 1 | 0 | 4 | 8 | .564076 |
|   |   | 1 | 1 | 4 | 6 | -.455179 |    |   | 1 | 0 | 6 | 5 | .345033 |
|   |   | 1 | 1 | 6 | 6 | -.890400 |    |   | 1 | 0 | 6 | 8 | .750180 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | -.964486 |    |   | 1 | 1 | 6 | 6 | 1.00000 |
|   |   | 3/2 | 1/2 | 7/2 | 15/2 | -.264135 |    |   | 3/2 | 1/2 | 7/2 | 15/2 | -1.00000 |

### V = 4  t = 2

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2 | 1 | 1 | 1 | 2 | 2 | .335030 | 4 | 1 | 2 | 0 | 0 | 4 | -1.00000 |
|   |   | 1 | 1 | 2 | 4 | .329914 | 5 | 1 | 1 | 1 | 2 | 4 | .460566 |
|   |   | 1 | 1 | 4 | 4 | -.662338 |   |   | 1 | 1 | 2 | 6 | .410891 |
|   |   | 1 | 1 | 4 | 6 | -.535258 |   |   | 1 | 1 | 4 | 4 | .000000 |
|   |   | 1 | 1 | 6 | 6 | .231774 |   |   | 1 | 1 | 4 | 6 | -.786796 |
|   |   | 3/2 | 1/2 | 7/2 | 3/2 | .560612 |   |   | 1 | 1 | 6 | 6 | .000000 |
|   |   | 3/2 | 1/2 | 7/2 | 5/2 | -.158114 |   |   | 3/2 | 1/2 | 7/2 | 3/2 | .387298 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | -.754854 |   |   | 3/2 | 1/2 | 7/2 | 5/2 | .333712 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | -.301511 |   |   | 3/2 | 1/2 | 7/2 | 9/2 | .553912 |
|   |   | 2 | 0 | 0 | 2 | 1.00000 |   |   | 3/2 | 1/2 | 7/2 | 11/2 | .459390 |
| 4 | 1 | 1 | 1 | 2 | 2 | -.350467 |   |   | 3/2 | 1/2 | 7/2 | 15/2 | .469871 |
|   |   | 1 | 1 | 2 | 4 | -.485621 |   |   | 2 | 0 | 0 | 5 | 1.00000 |
|   |   | 1 | 1 | 2 | 6 | .544331 | 8 | 1 | 1 | 1 | 2 | 6 | -.398409 |
|   |   | 1 | 1 | 4 | 4 | .196601 |   |   | 1 | 1 | 4 | 4 | .380300 |
|   |   | 1 | 1 | 4 | 6 | .142134 |   |   | 1 | 1 | 4 | 6 | .518831 |
|   |   | 1 | 1 | 6 | 6 | .534972 |   |   | 1 | 1 | 6 | 6 | -.653802 |
|   |   | 3/2 | 1/2 | 7/2 | 3/2 | .175933 |   |   | 3/2 | 1/2 | 7/2 | 9/2 | -.373979 |
|   |   | 3/2 | 1/2 | 7/2 | 5/2 | -.658281 |   |   | 3/2 | 1/2 | 7/2 | 11/2 | .483494 |
|   |   | 3/2 | 1/2 | 7/2 | 9/2 | -.128388 |   |   | 3/2 | 1/2 | 7/2 | 15/2 | .791438 |
|   |   | 3/2 | 1/2 | 7/2 | 11/2 | .645497 |   |   | 2 | 0 | 0 | 8 | -1.00000 |
|   |   | 3/2 | 1/2 | 7/2 | 15/2 | -.320256 |   |   |   |   |   |   |   |

### V = 5  t = 1/2

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | 1 | 0 | 1/2 | 2 | 3/2 | -.097702 | 1/2 | 2 | 0 | 1/2 | 2 | 5/2 | .652602 |
|   |   | 0 | 1/2 | 2 | 5/2 | .127911 |   |   | 0 | 1/2 | 4 | 9/2 | -.583830 |
|   |   | 0 | 1/2 | 4 | 9/2 | .275345 |   |   | 0 | 1/2 | 5 | 9/2 | -.409735 |
|   |   | 0 | 1/2 | 5 | 9/2 | -.392346 |   |   | 0 | 1/2 | 5 | 11/2 | -.022106 |
|   |   | 0 | 1/2 | 5 | 11/2 | .762652 |   |   | 0 | 1/2 | 8 | 15/2 | .109446 |
|   |   | 0 | 1/2 | 8 | 15/2 | -.403366 |   |   | 1 | 1/2 | 2 | 3/2 | -.680907 |
|   |   | 1 | 1/2 | 2 | 3/2 | -.580556 |   |   | 1 | 1/2 | 2 | 5/2 | -.405744 |
|   |   | 1 | 1/2 | 2 | 5/2 | .072203 |   |   | 1 | 1/2 | 4 | 9/2 | .090827 |
|   |   | 1 | 1/2 | 4 | 9/2 | .449806 |   |   | 1 | 1/2 | 6 | 11/2 | -.602900 |
|   |   | 1 | 1/2 | 6 | 11/2 | .674845 | 3/2 | 1 | 0 | 1/2 | 2 | 3/2 | .125472 |
| 1/2 | 2 | 0 | 1/2 | 2 | 3/2 | .230007 |   |   | 0 | 1/2 | 2 | 5/2 | .095241 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$$V = 5 \qquad t = 1/2$$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 3/2 | 1 | 0 | 1/2 | 4 | 5/2 | -.068494 |
| | | 0 | 1/2 | 4 | 9/2 | .115701 |
| | | 0 | 1/2 | 4 | 11/2 | .203213 |
| | | 0 | 1/2 | 5 | 9/2 | .158686 |
| | | 0 | 1/2 | 5 | 11/2 | .350437 |
| | | 0 | 1/2 | 8 | 15/2 | .876256 |
| | | 1 | 1/2 | 2 | 3/2 | .028198 |
| | | 1 | 1/2 | 2 | 5/2 | -.279408 |
| | | 1 | 1/2 | 4 | 5/2 | -.023166 |
| | | 1 | 1/2 | 4 | 9/2 | .692413 |
| | | 1 | 1/2 | 4 | 11/2 | .100779 |
| | | 1 | 1/2 | 6 | 9/2 | -.173478 |
| | | 1 | 1/2 | 6 | 11/2 | .288369 |
| | | 1 | 1/2 | 6 | 15/2 | -.563698 |
| 3/2 | 2 | 0 | 1/2 | 2 | 3/2 | -.303826 |
| | | 0 | 1/2 | 2 | 5/2 | .104809 |
| | | 0 | 1/2 | 4 | 5/2 | -.055930 |
| | | 0 | 1/2 | 4 | 9/2 | .379102 |
| | | 0 | 1/2 | 4 | 11/2 | -.039307 |
| | | 0 | 1/2 | 5 | 9/2 | -.739005 |
| | | 0 | 1/2 | 5 | 11/2 | -.362749 |
| | | 0 | 1/2 | 8 | 15/2 | .265703 |
| | | 1 | 1/2 | 2 | 3/2 | -.001471 |
| | | 1 | 1/2 | 2 | 5/2 | .014576 |
| | | 1 | 1/2 | 4 | 5/2 | -.451602 |
| | | 1 | 1/2 | 4 | 9/2 | -.376916 |
| | | 1 | 1/2 | 4 | 11/2 | .618869 |
| | | 1 | 1/2 | 6 | 9/2 | .300742 |
| | | 1 | 1/2 | 6 | 11/2 | .333316 |
| | | 1 | 1/2 | 6 | 15/2 | -.263117 |
| 3/2 | 3 | 0 | 1/2 | 2 | 3/2 | -.077724 |
| | | 0 | 1/2 | 2 | 5/2 | .023045 |
| | | 0 | 1/2 | 4 | 5/2 | -.760851 |
| | | 0 | 1/2 | 4 | 9/2 | -.095066 |
| | | 0 | 1/2 | 4 | 11/2 | .604874 |
| | | 0 | 1/2 | 5 | 9/2 | .039497 |
| | | 0 | 1/2 | 5 | 11/2 | -.148753 |
| | | 0 | 1/2 | 8 | 15/2 | -.126236 |
| | | 1 | 1/2 | 2 | 3/2 | -.029856 |
| | | 1 | 1/2 | 2 | 5/2 | -.773908 |
| | | 1 | 1/2 | 4 | 5/2 | .414485 |
| | | 1 | 1/2 | 4 | 9/2 | -.132588 |
| | | 1 | 1/2 | 4 | 11/2 | .146595 |
| | | 1 | 1/2 | 6 | 9/2 | .175583 |
| | | 1 | 1/2 | 6 | 11/2 | .255643 |
| | | 1 | 1/2 | 6 | 15/2 | .305163 |
| 3/2 | 4 | 0 | 1/2 | 2 | 3/2 | -.210411 |
| | | 0 | 1/2 | 2 | 5/2 | -.641741 |
| | | 0 | 1/2 | 4 | 5/2 | .058494 |
| | | 0 | 1/2 | 4 | 9/2 | -.567902 |
| | | 0 | 1/2 | 4 | 11/2 | .090864 |
| | | 0 | 1/2 | 5 | 9/2 | -.371537 |
| | | 0 | 1/2 | 5 | 11/2 | .232523 |
| | | 0 | 1/2 | 8 | 15/2 | .132658 |
| | | 1 | 1/2 | 2 | 3/2 | .720505 |
| | | 1 | 1/2 | 2 | 5/2 | .161962 |
| | | 1 | 1/2 | 4 | 5/2 | .412573 |
| | | 1 | 1/2 | 4 | 9/2 | -.298910 |
| | | 1 | 1/2 | 4 | 11/2 | .081601 |
| | | 1 | 1/2 | 6 | 9/2 | -.325436 |
| | | 1 | 1/2 | 6 | 11/2 | .187249 |
| | | 1 | 1/2 | 6 | 15/2 | -.217824 |
| 5/2 | 1 | 0 | 1/2 | 2 | 3/2 | -.254820 |
| | | 0 | 1/2 | 2 | 5/2 | .287219 |
| | | 0 | 1/2 | 2 | 9/2 | -.079446 |
| | | 0 | 1/2 | 4 | 3/2 | -.347098 |
| | | 0 | 1/2 | 4 | 5/2 | -.180777 |

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 5/2 | 1 | 0 | 1/2 | 4 | 9/2 | -.057254 |
| | | 0 | 1/2 | 4 | 11/2 | -.394478 |
| | | 0 | 1/2 | 5 | 5/2 | -.393117 |
| | | 0 | 1/2 | 5 | 9/2 | .129577 |
| | | 0 | 1/2 | 5 | 11/2 | .596991 |
| | | 0 | 1/2 | 5 | 15/2 | .012978 |
| | | 0 | 1/2 | 8 | 11/2 | .062873 |
| | | 0 | 1/2 | 8 | 15/2 | -.048586 |
| | | 1 | 1/2 | 2 | 3/2 | -.546237 |
| | | 1 | 1/2 | 2 | 5/2 | .012433 |
| | | 1 | 1/2 | 2 | 9/2 | -.332201 |
| | | 1 | 1/2 | 4 | 3/2 | -.191225 |
| | | 1 | 1/2 | 4 | 5/2 | .035556 |
| | | 1 | 1/2 | 4 | 9/2 | -.383985 |
| | | 1 | 1/2 | 4 | 11/2 | .399548 |
| | | 1 | 1/2 | 6 | 9/2 | .291165 |
| | | 1 | 1/2 | 6 | 11/2 | .385144 |
| | | 1 | 1/2 | 6 | 15/2 | .114391 |
| 5/2 | 2 | 0 | 1/2 | 2 | 3/2 | -.090978 |
| | | 0 | 1/2 | 2 | 5/2 | -.386454 |
| | | 0 | 1/2 | 2 | 9/2 | -.204915 |
| | | 0 | 1/2 | 4 | 3/2 | .237028 |
| | | 0 | 1/2 | 4 | 5/2 | -.145391 |
| | | 0 | 1/2 | 4 | 9/2 | .560745 |
| | | 0 | 1/2 | 4 | 11/2 | .038853 |
| | | 0 | 1/2 | 5 | 5/2 | .204594 |
| | | 0 | 1/2 | 5 | 9/2 | -.035381 |
| | | 0 | 1/2 | 5 | 11/2 | .442302 |
| | | 0 | 1/2 | 5 | 15/2 | .265684 |
| | | 0 | 1/2 | 8 | 11/2 | -.257209 |
| | | 0 | 1/2 | 8 | 15/2 | -.177865 |
| | | 1 | 1/2 | 2 | 3/2 | .088733 |
| | | 1 | 1/2 | 2 | 5/2 | .247741 |
| | | 1 | 1/2 | 2 | 9/2 | .156842 |
| | | 1 | 1/2 | 4 | 3/2 | .060866 |
| | | 1 | 1/2 | 4 | 5/2 | .463000 |
| | | 1 | 1/2 | 4 | 9/2 | -.127390 |
| | | 1 | 1/2 | 4 | 11/2 | -.403217 |
| | | 1 | 1/2 | 6 | 9/2 | .582850 |
| | | 1 | 1/2 | 6 | 11/2 | .198431 |
| | | 1 | 1/2 | 6 | 15/2 | -.360800 |
| 5/2 | 3 | 0 | 1/2 | 2 | 3/2 | -.077399 |
| | | 0 | 1/2 | 2 | 5/2 | .259773 |
| | | 0 | 1/2 | 2 | 9/2 | -.149973 |
| | | 0 | 1/2 | 4 | 3/2 | -.098737 |
| | | 0 | 1/2 | 4 | 5/2 | -.004717 |
| | | 0 | 1/2 | 4 | 9/2 | -.303170 |
| | | 0 | 1/2 | 4 | 11/2 | .347413 |
| | | 0 | 1/2 | 5 | 5/2 | -.132995 |
| | | 0 | 1/2 | 5 | 9/2 | -.000926 |
| | | 0 | 1/2 | 5 | 11/2 | -.069380 |
| | | 0 | 1/2 | 5 | 15/2 | .513972 |
| | | 0 | 1/2 | 8 | 11/2 | -.628423 |
| | | 0 | 1/2 | 8 | 15/2 | -.008498 |
| | | 1 | 1/2 | 2 | 3/2 | .019354 |
| | | 1 | 1/2 | 2 | 5/2 | .118459 |
| | | 1 | 1/2 | 2 | 9/2 | -.597263 |
| | | 1 | 1/2 | 4 | 3/2 | .235676 |
| | | 1 | 1/2 | 4 | 5/2 | -.393229 |
| | | 1 | 1/2 | 4 | 9/2 | -.056561 |
| | | 1 | 1/2 | 4 | 11/2 | -.039198 |
| | | 1 | 1/2 | 6 | 9/2 | .265658 |
| | | 1 | 1/2 | 6 | 11/2 | -.439748 |
| | | 1 | 1/2 | 6 | 15/2 | -.387311 |
| 5/2 | 4 | 0 | 1/2 | 2 | 3/2 | -.408664 |
| | | 0 | 1/2 | 2 | 5/2 | -.301578 |
| | | 0 | 1/2 | 2 | 9/2 | -.479611 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D_{(vt)\alpha;J_\lambda J_\mu}^{T_\lambda T_\mu J}$

$v = 5 \quad t = 1/2$

| J | α | $T_\lambda$ | $T_\mu$ | J | J | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5/2 | 4 | 0 | 1/2 | 4 | 3/2 | .320100 | 7/2 | 1 | 1 | 1/2 | 4 | 11/2 | -.031527 |
| | | 0 | 1/2 | 4 | 5/2 | .106245 | | | 1 | 1/2 | 4 | 15/2 | -.394842 |
| | | 0 | 1/2 | 4 | 9/2 | -.201390 | | | 1 | 1/2 | 6 | 5/2 | -.123618 |
| | | 0 | 1/2 | 4 | 11/2 | -.326055 | | | 1 | 1/2 | 6 | 9/2 | .156183 |
| | | 0 | 1/2 | 5 | 5/2 | -.163826 | | | 1 | 1/2 | 6 | 11/2 | .291556 |
| | | 0 | 1/2 | 5 | 9/2 | .346101 | | | 1 | 1/2 | 6 | 15/2 | -.091386 |
| | | 0 | 1/2 | 5 | 11/2 | -.282372 | 7/2 | 2 | 0 | 1/2 | 2 | 3/2 | -.134647 |
| | | 0 | 1/2 | 5 | 15/2 | .048262 | | | 0 | 1/2 | 2 | 5/2 | .247904 |
| | | 0 | 1/2 | 8 | 11/2 | .008713 | | | 0 | 1/2 | 2 | 9/2 | -.302642 |
| | | 0 | 1/2 | 8 | 15/2 | .150440 | | | 0 | 1/2 | 2 | 11/2 | .100836 |
| | | 1 | 1/2 | 2 | 3/2 | .434417 | | | 0 | 1/2 | 4 | 3/2 | -.230726 |
| | | 1 | 1/2 | 2 | 5/2 | -.575251 | | | 0 | 1/2 | 4 | 5/2 | .213978 |
| | | 1 | 1/2 | 2 | 9/2 | -.021470 | | | 0 | 1/2 | 4 | 9/2 | -.189143 |
| | | 1 | 1/2 | 4 | 3/2 | -.452461 | | | 0 | 1/2 | 4 | 11/2 | -.112392 |
| | | 1 | 1/2 | 4 | 5/2 | -.306391 | | | 0 | 1/2 | 4 | 15/2 | -.053251 |
| | | 1 | 1/2 | 4 | 9/2 | -.151351 | | | 0 | 1/2 | 5 | 3/2 | .111932 |
| | | 1 | 1/2 | 4 | 11/2 | -.126788 | | | 0 | 1/2 | 5 | 5/2 | .133081 |
| | | 1 | 1/2 | 6 | 9/2 | .354058 | | | 0 | 1/2 | 5 | 9/2 | -.047097 |
| | | 1 | 1/2 | 6 | 11/2 | .114110 | | | 0 | 1/2 | 5 | 11/2 | -.058421 |
| | | 1 | 1/2 | 6 | 15/2 | .062854 | | | 0 | 1/2 | 5 | 15/2 | .286624 |
| 5/2 | 5 | 0 | 1/2 | 2 | 3/2 | -.382962 | | | 0 | 1/2 | 8 | 9/2 | .427463 |
| | | 0 | 1/2 | 2 | 5/2 | .193028 | | | 0 | 1/2 | 8 | 11/2 | .071933 |
| | | 0 | 1/2 | 2 | 9/2 | -.362674 | | | 0 | 1/2 | 8 | 15/2 | -.602055 |
| | | 0 | 1/2 | 4 | 3/2 | -.378723 | | | 1 | 1/2 | 2 | 3/2 | .009625 |
| | | 0 | 1/2 | 4 | 5/2 | .069793 | | | 1 | 1/2 | 2 | 5/2 | -.063127 |
| | | 0 | 1/2 | 4 | 9/2 | .133538 | | | 1 | 1/2 | 2 | 9/2 | .245666 |
| | | 0 | 1/2 | 4 | 11/2 | .383483 | | | 1 | 1/2 | 2 | 11/2 | -.367030 |
| | | 0 | 1/2 | 5 | 5/2 | .432029 | | | 1 | 1/2 | 4 | 3/2 | -.469081 |
| | | 0 | 1/2 | 5 | 9/2 | .234055 | | | 1 | 1/2 | 4 | 5/2 | .255292 |
| | | 0 | 1/2 | 5 | 11/2 | .000628 | | | 1 | 1/2 | 4 | 9/2 | .043983 |
| | | 0 | 1/2 | 5 | 15/2 | -.358754 | | | 1 | 1/2 | 4 | 11/2 | -.252998 |
| | | 0 | 1/2 | 8 | 11/2 | .034767 | | | 1 | 1/2 | 4 | 15/2 | .453615 |
| | | 0 | 1/2 | 8 | 15/2 | .003133 | | | 1 | 1/2 | 6 | 5/2 | .116727 |
| | | 1 | 1/2 | 2 | 3/2 | .338991 | | | 1 | 1/2 | 6 | 9/2 | -.037491 |
| | | 1 | 1/2 | 2 | 5/2 | .606866 | | | 1 | 1/2 | 6 | 11/2 | -.210154 |
| | | 1 | 1/2 | 2 | 9/2 | .036053 | | | 1 | 1/2 | 6 | 15/2 | .429817 |
| | | 1 | 1/2 | 4 | 3/2 | -.580329 | 7/2 | 3 | 0 | 1/2 | 2 | 3/2 | -.389714 |
| | | 1 | 1/2 | 4 | 5/2 | -.024099 | | | 0 | 1/2 | 2 | 5/2 | .327818 |
| | | 1 | 1/2 | 4 | 9/2 | -.262258 | | | 0 | 1/2 | 2 | 9/2 | -.280115 |
| | | 1 | 1/2 | 4 | 11/2 | .230224 | | | 0 | 1/2 | 2 | 11/2 | -.290128 |
| | | 1 | 1/2 | 6 | 9/2 | -.153938 | | | 0 | 1/2 | 4 | 3/2 | -.229634 |
| | | 1 | 1/2 | 6 | 11/2 | -.145868 | | | 0 | 1/2 | 4 | 5/2 | -.111806 |
| | | 1 | 1/2 | 6 | 15/2 | -.106677 | | | 0 | 1/2 | 4 | 9/2 | -.073785 |
| 7/2 | 1 | 0 | 1/2 | 2 | 3/2 | .195000 | | | 0 | 1/2 | 4 | 11/2 | -.154475 |
| | | 0 | 1/2 | 2 | 5/2 | .338480 | | | 0 | 1/2 | 4 | 15/2 | .135026 |
| | | 0 | 1/2 | 2 | 9/2 | .234657 | | | 0 | 1/2 | 5 | 3/2 | .066704 |
| | | 0 | 1/2 | 2 | 11/2 | .102491 | | | 0 | 1/2 | 5 | 5/2 | .085842 |
| | | 0 | 1/2 | 4 | 3/2 | -.261545 | | | 0 | 1/2 | 5 | 9/2 | -.508559 |
| | | 0 | 1/2 | 4 | 5/2 | .702308 | | | 0 | 1/2 | 5 | 11/2 | -.069322 |
| | | 0 | 1/2 | 4 | 9/2 | .037758 | | | 0 | 1/2 | 5 | 15/2 | -.283276 |
| | | 0 | 1/2 | 4 | 11/2 | .084129 | | | 0 | 1/2 | 8 | 9/2 | -.283538 |
| | | 0 | 1/2 | 4 | 15/2 | .138484 | | | 0 | 1/2 | 8 | 11/2 | -.110121 |
| | | 0 | 1/2 | 5 | 3/2 | -.331825 | | | 0 | 1/2 | 8 | 15/2 | .131252 |
| | | 0 | 1/2 | 5 | 5/2 | -.149775 | | | 1 | 1/2 | 2 | 3/2 | -.159111 |
| | | 0 | 1/2 | 5 | 9/2 | -.049594 | | | 1 | 1/2 | 2 | 5/2 | .125498 |
| | | 0 | 1/2 | 5 | 11/2 | -.072520 | | | 1 | 1/2 | 2 | 9/2 | .238100 |
| | | 0 | 1/2 | 5 | 15/2 | -.059768 | | | 1 | 1/2 | 2 | 11/2 | .012058 |
| | | 0 | 1/2 | 8 | 9/2 | -.122239 | | | 1 | 1/2 | 4 | 3/2 | -.290952 |
| | | 0 | 1/2 | 8 | 11/2 | -.162042 | | | 1 | 1/2 | 4 | 5/2 | -.003000 |
| | | 0 | 1/2 | 8 | 15/2 | .086509 | | | 1 | 1/2 | 4 | 9/2 | .635770 |
| | | 1 | 1/2 | 2 | 3/2 | .282064 | | | 1 | 1/2 | 4 | 11/2 | .030240 |
| | | 1 | 1/2 | 2 | 5/2 | -.275724 | | | 1 | 1/2 | 4 | 15/2 | -.286989 |
| | | 1 | 1/2 | 2 | 9/2 | .375737 | | | 1 | 1/2 | 6 | 5/2 | -.255005 |
| | | 1 | 1/2 | 2 | 11/2 | -.493306 | | | 1 | 1/2 | 6 | 9/2 | .512433 |
| | | 1 | 1/2 | 4 | 3/2 | .104224 | | | 1 | 1/2 | 6 | 11/2 | .003599 |
| | | 1 | 1/2 | 4 | 5/2 | .240394 | | | 1 | 1/2 | 6 | 15/2 | -.048215 |
| | | 1 | 1/2 | 4 | 9/2 | -.318293 | 7/2 | 4 | 0 | 1/2 | 2 | 3/2 | -.119603 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

$v = 5$   $t = 1/2$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/2 | 4 | 0 | 1/2 | 2 | 5/2 | -.155014 | 7/2 | 6 | 0 | 1/2 | 4 | 15/2 | -.327950 |
| | | 0 | 1/2 | 2 | 9/2 | .084451 | | | 0 | 1/2 | 5 | 3/2 | -.279133 |
| | | 0 | 1/2 | 2 | 11/2 | -.513687 | | | 0 | 1/2 | 5 | 5/2 | .176524 |
| | | 0 | 1/2 | 4 | 3/2 | -.150269 | | | 0 | 1/2 | 5 | 9/2 | .100971 |
| | | 0 | 1/2 | 4 | 5/2 | .276869 | | | 0 | 1/2 | 5 | 11/2 | -.104074 |
| | | 0 | 1/2 | 4 | 9/2 | -.204379 | | | 0 | 1/2 | 5 | 15/2 | .251336 |
| | | 0 | 1/2 | 4 | 11/2 | .310272 | | | 0 | 1/2 | 8 | 9/2 | .070077 |
| | | 0 | 1/2 | 4 | 15/2 | -.057771 | | | 0 | 1/2 | 8 | 11/2 | .356469 |
| | | 0 | 1/2 | 5 | 3/2 | .240521 | | | 0 | 1/2 | 8 | 15/2 | .338861 |
| | | 0 | 1/2 | 5 | 5/2 | .062579 | | | 1 | 1/2 | 2 | 3/2 | -.285395 |
| | | 0 | 1/2 | 5 | 9/2 | .286455 | | | 1 | 1/2 | 2 | 5/2 | .452682 |
| | | 0 | 1/2 | 5 | 11/2 | .127461 | | | 1 | 1/2 | 2 | 9/2 | .266642 |
| | | 0 | 1/2 | 5 | 15/2 | -.017674 | | | 1 | 1/2 | 2 | 11/2 | .050555 |
| | | 0 | 1/2 | 8 | 9/2 | -.377654 | | | 1 | 1/2 | 4 | 3/2 | -.024791 |
| | | 0 | 1/2 | 8 | 11/2 | .318960 | | | 1 | 1/2 | 4 | 5/2 | .157462 |
| | | 0 | 1/2 | 8 | 15/2 | -.212851 | | | 1 | 1/2 | 4 | 9/2 | -.152193 |
| | | 1 | 1/2 | 2 | 3/2 | -.495245 | | | 1 | 1/2 | 4 | 11/2 | -.447765 |
| | | 1 | 1/2 | 2 | 5/2 | -.478935 | | | 1 | 1/2 | 4 | 15/2 | .050327 |
| | | 1 | 1/2 | 2 | 9/2 | -.447801 | | | 1 | 1/2 | 6 | 5/2 | .367336 |
| | | 1 | 1/2 | 2 | 11/2 | -.184533 | | | 1 | 1/2 | 6 | 9/2 | .042731 |
| | | 1 | 1/2 | 4 | 3/2 | .166609 | | | 1 | 1/2 | 6 | 11/2 | .162882 |
| | | 1 | 1/2 | 4 | 5/2 | .169487 | | | 1 | 1/2 | 6 | 15/2 | -.474431 |
| | | 1 | 1/2 | 4 | 9/2 | .117976 | 7/2 | 7 | 0 | 1/2 | 2 | 3/2 | .263830 |
| | | 1 | 1/2 | 4 | 11/2 | -.373909 | | | 0 | 1/2 | 2 | 5/2 | .064497 |
| | | 1 | 1/2 | 4 | 15/2 | -.188744 | | | 0 | 1/2 | 2 | 9/2 | -.090394 |
| | | 1 | 1/2 | 6 | 5/2 | .157765 | | | 0 | 1/2 | 2 | 11/2 | .161067 |
| | | 1 | 1/2 | 6 | 9/2 | .122586 | | | 0 | 1/2 | 4 | 3/2 | .339638 |
| | | 1 | 1/2 | 6 | 11/2 | -.067286 | | | 0 | 1/2 | 4 | 5/2 | .017224 |
| | | 1 | 1/2 | 6 | 15/2 | .022261 | | | 0 | 1/2 | 4 | 9/2 | -.506321 |
| 7/2 | 5 | 0 | 1/2 | 2 | 3/2 | -.050324 | | | 0 | 1/2 | 4 | 11/2 | .118401 |
| | | 0 | 1/2 | 2 | 5/2 | .043142 | | | 0 | 1/2 | 4 | 15/2 | .023809 |
| | | 0 | 1/2 | 2 | 9/2 | .017034 | | | 0 | 1/2 | 5 | 3/2 | -.265523 |
| | | 0 | 1/2 | 2 | 11/2 | .051393 | | | 0 | 1/2 | 5 | 5/2 | .275940 |
| | | 0 | 1/2 | 4 | 3/2 | .051243 | | | 0 | 1/2 | 5 | 9/2 | -.236557 |
| | | 0 | 1/2 | 4 | 5/2 | -.086968 | | | 0 | 1/2 | 5 | 11/2 | .412451 |
| | | 0 | 1/2 | 4 | 9/2 | .153316 | | | 0 | 1/2 | 5 | 15/2 | -.297099 |
| | | 0 | 1/2 | 4 | 11/2 | .067453 | | | 0 | 1/2 | 8 | 9/2 | -.044473 |
| | | 0 | 1/2 | 4 | 15/2 | -.547170 | | | 0 | 1/2 | 8 | 11/2 | .173647 |
| | | 0 | 1/2 | 5 | 3/2 | -.204074 | | | 0 | 1/2 | 8 | 15/2 | -.111370 |
| | | 0 | 1/2 | 5 | 5/2 | -.541025 | | | 1 | 1/2 | 2 | 3/2 | .105395 |
| | | 0 | 1/2 | 5 | 9/2 | -.199826 | | | 1 | 1/2 | 2 | 5/2 | -.399094 |
| | | 0 | 1/2 | 5 | 11/2 | -.125221 | | | 1 | 1/2 | 2 | 9/2 | .168535 |
| | | 0 | 1/2 | 5 | 15/2 | -.282500 | | | 1 | 1/2 | 2 | 11/2 | .243105 |
| | | 0 | 1/2 | 8 | 9/2 | -.089608 | | | 1 | 1/2 | 4 | 3/2 | -.219309 |
| | | 0 | 1/2 | 8 | 11/2 | .260702 | | | 1 | 1/2 | 4 | 5/2 | -.542444 |
| | | 0 | 1/2 | 8 | 15/2 | -.330560 | | | 1 | 1/2 | 4 | 9/2 | .167834 |
| | | 1 | 1/2 | 2 | 3/2 | .418114 | | | 1 | 1/2 | 4 | 11/2 | -.490654 |
| | | 1 | 1/2 | 2 | 5/2 | .197582 | | | 1 | 1/2 | 4 | 15/2 | .095971 |
| | | 1 | 1/2 | 2 | 9/2 | -.275398 | | | 1 | 1/2 | 6 | 5/2 | -.273032 |
| | | 1 | 1/2 | 2 | 11/2 | -.296570 | | | 1 | 1/2 | 6 | 9/2 | .055822 |
| | | 1 | 1/2 | 4 | 3/2 | .000380 | | | 1 | 1/2 | 6 | 11/2 | -.073185 |
| | | 1 | 1/2 | 4 | 5/2 | -.378417 | | | 1 | 1/2 | 6 | 15/2 | -.196549 |
| | | 1 | 1/2 | 4 | 9/2 | -.025543 | 9/2 | 1 | 0 | 1/2 | 2 | 5/2 | .276991 |
| | | 1 | 1/2 | 4 | 11/2 | -.076277 | | | 0 | 1/2 | 2 | 9/2 | -.120046 |
| | | 1 | 1/2 | 4 | 15/2 | -.104393 | | | 0 | 1/2 | 2 | 11/2 | -.214288 |
| | | 1 | 1/2 | 6 | 5/2 | .462344 | | | 0 | 1/2 | 4 | 3/2 | -.341375 |
| | | 1 | 1/2 | 6 | 9/2 | .424079 | | | 0 | 1/2 | 4 | 5/2 | -.123044 |
| | | 1 | 1/2 | 6 | 11/2 | -.261093 | | | 0 | 1/2 | 4 | 9/2 | .239329 |
| | | 1 | 1/2 | 6 | 15/2 | .000653 | | | 0 | 1/2 | 4 | 11/2 | -.023241 |
| 7/2 | 6 | 0 | 1/2 | 2 | 3/2 | .225328 | | | 0 | 1/2 | 4 | 15/2 | .118433 |
| | | 0 | 1/2 | 2 | 5/2 | .301833 | | | 0 | 1/2 | 5 | 3/2 | -.165789 |
| | | 0 | 1/2 | 2 | 9/2 | .110128 | | | 0 | 1/2 | 5 | 5/2 | -.154803 |
| | | 0 | 1/2 | 2 | 11/2 | -.176265 | | | 0 | 1/2 | 5 | 9/2 | -.021663 |
| | | 0 | 1/2 | 4 | 3/2 | -.361200 | | | 0 | 1/2 | 5 | 11/2 | .423436 |
| | | 0 | 1/2 | 4 | 5/2 | -.289385 | | | 0 | 1/2 | 5 | 15/2 | .442793 |
| | | 0 | 1/2 | 4 | 9/2 | -.206575 | | | 0 | 1/2 | 8 | 9/2 | -.456321 |
| | | 0 | 1/2 | 4 | 11/2 | -.102045 | | | 0 | 1/2 | 8 | 11/2 | .045746 |

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TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

$v = 5 \quad t = 1/2$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9/2 | 1 | 0 | 1/2 | 8 | 15/2 | -.147718 | 9/2 | 3 | 1 | 1/2 | 6 | 3/2 | -.473707 |
| | | 1 | 1/2 | 2 | 5/2 | .170165 | | | 1 | 1/2 | 6 | 5/2 | -.102059 |
| | | 1 | 1/2 | 2 | 9/2 | .578104 | | | 1 | 1/2 | 6 | 9/2 | .063552 |
| | | 1 | 1/2 | 2 | 11/2 | -.045800 | | | 1 | 1/2 | 6 | 11/2 | .124892 |
| | | 1 | 1/2 | 4 | 3/2 | .307907 | | | 1 | 1/2 | 6 | 15/2 | .120153 |
| | | 1 | 1/2 | 4 | 5/2 | -.469185 | 9/2 | 4 | 0 | 1/2 | 2 | 5/2 | -.030172 |
| | | 1 | 1/2 | 4 | 9/2 | -.163439 | | | 0 | 1/2 | 2 | 9/2 | -.093971 |
| | | 1 | 1/2 | 4 | 11/2 | .376916 | | | 0 | 1/2 | 2 | 11/2 | .282936 |
| | | 1 | 1/2 | 4 | 15/2 | .176172 | | | 0 | 1/2 | 4 | 3/2 | .027635 |
| | | 1 | 1/2 | 6 | 3/2 | .084908 | | | 0 | 1/2 | 4 | 5/2 | .275928 |
| | | 1 | 1/2 | 6 | 5/2 | -.189677 | | | 0 | 1/2 | 4 | 9/2 | -.194546 |
| | | 1 | 1/2 | 6 | 9/2 | .026778 | | | 0 | 1/2 | 4 | 11/2 | -.555754 |
| | | 1 | 1/2 | 6 | 11/2 | -.213826 | | | 0 | 1/2 | 4 | 15/2 | -.166383 |
| | | 1 | 1/2 | 6 | 15/2 | -.174246 | | | 0 | 1/2 | 5 | 3/2 | -.159309 |
| 9/2 | 2 | 0 | 1/2 | 2 | 5/2 | -.398382 | | | 0 | 1/2 | 5 | 5/2 | -.048239 |
| | | 0 | 1/2 | 2 | 9/2 | -.145117 | | | 0 | 1/2 | 5 | 9/2 | .466746 |
| | | 0 | 1/2 | 2 | 11/2 | .268779 | | | 0 | 1/2 | 5 | 11/2 | .394290 |
| | | 0 | 1/2 | 4 | 3/2 | .291030 | | | 0 | 1/2 | 5 | 15/2 | -.107241 |
| | | 0 | 1/2 | 4 | 5/2 | -.078366 | | | 0 | 1/2 | 8 | 9/2 | -.090016 |
| | | 0 | 1/2 | 4 | 9/2 | -.424474 | | | 0 | 1/2 | 8 | 11/2 | -.027492 |
| | | 0 | 1/2 | 4 | 11/2 | .086079 | | | 0 | 1/2 | 8 | 15/2 | .193726 |
| | | 0 | 1/2 | 4 | 15/2 | -.135521 | | | 1 | 1/2 | 2 | 5/2 | -.337740 |
| | | 0 | 1/2 | 5 | 3/2 | -.015195 | | | 1 | 1/2 | 2 | 9/2 | .208140 |
| | | 0 | 1/2 | 5 | 5/2 | .059371 | | | 1 | 1/2 | 2 | 11/2 | -.201098 |
| | | 0 | 1/2 | 5 | 9/2 | -.211498 | | | 1 | 1/2 | 4 | 3/2 | -.191632 |
| | | 0 | 1/2 | 5 | 11/2 | -.046502 | | | 1 | 1/2 | 4 | 5/2 | -.010136 |
| | | 0 | 1/2 | 5 | 15/2 | .465598 | | | 1 | 1/2 | 4 | 9/2 | .284668 |
| | | 0 | 1/2 | 8 | 9/2 | -.375145 | | | 1 | 1/2 | 4 | 11/2 | .290580 |
| | | 0 | 1/2 | 8 | 11/2 | -.188138 | | | 1 | 1/2 | 4 | 15/2 | .089154 |
| | | 0 | 1/2 | 8 | 15/2 | -.087384 | | | 1 | 1/2 | 6 | 3/2 | -.024435 |
| | | 1 | 1/2 | 2 | 5/2 | .153945 | | | 1 | 1/2 | 6 | 5/2 | .639630 |
| | | 1 | 1/2 | 2 | 9/2 | -.225478 | | | 1 | 1/2 | 6 | 9/2 | .305278 |
| | | 1 | 1/2 | 2 | 11/2 | -.139279 | | | 1 | 1/2 | 6 | 11/2 | -.236092 |
| | | 1 | 1/2 | 4 | 3/2 | .025779 | | | 1 | 1/2 | 6 | 15/2 | .182387 |
| | | 1 | 1/2 | 4 | 5/2 | .435214 | 9/2 | 5 | 0 | 1/2 | 2 | 5/2 | .172869 |
| | | 1 | 1/2 | 4 | 9/2 | -.321763 | | | 0 | 1/2 | 2 | 9/2 | -.462385 |
| | | 1 | 1/2 | 4 | 11/2 | .426633 | | | 0 | 1/2 | 2 | 11/2 | .100101 |
| | | 1 | 1/2 | 4 | 15/2 | -.050827 | | | 0 | 1/2 | 4 | 3/2 | .321233 |
| | | 1 | 1/2 | 6 | 3/2 | -.408091 | | | 0 | 1/2 | 4 | 5/2 | .203066 |
| | | 1 | 1/2 | 6 | 5/2 | -.085512 | | | 0 | 1/2 | 4 | 9/2 | .339899 |
| | | 1 | 1/2 | 6 | 9/2 | .338106 | | | 0 | 1/2 | 4 | 11/2 | -.223365 |
| | | 1 | 1/2 | 6 | 11/2 | -.212054 | | | 0 | 1/2 | 4 | 15/2 | .119742 |
| | | 1 | 1/2 | 6 | 15/2 | -.307769 | | | 0 | 1/2 | 5 | 3/2 | .131751 |
| 9/2 | 3 | 0 | 1/2 | 2 | 5/2 | -.040308 | | | 0 | 1/2 | 5 | 5/2 | .288672 |
| | | 0 | 1/2 | 2 | 9/2 | .634089 | | | 0 | 1/2 | 5 | 9/2 | .019937 |
| | | 0 | 1/2 | 2 | 11/2 | .187946 | | | 0 | 1/2 | 5 | 11/2 | -.336020 |
| | | 0 | 1/2 | 4 | 3/2 | .134330 | | | 0 | 1/2 | 5 | 15/2 | .071381 |
| | | 0 | 1/2 | 4 | 5/2 | .100204 | | | 0 | 1/2 | 8 | 9/2 | -.223212 |
| | | 0 | 1/2 | 4 | 9/2 | .066594 | | | 0 | 1/2 | 8 | 11/2 | .385331 |
| | | 0 | 1/2 | 4 | 11/2 | -.184627 | | | 0 | 1/2 | 8 | 15/2 | -.068648 |
| | | 0 | 1/2 | 4 | 15/2 | .182526 | | | 1 | 1/2 | 2 | 5/2 | -.559493 |
| | | 0 | 1/2 | 5 | 3/2 | -.433262 | | | 1 | 1/2 | 2 | 9/2 | .071978 |
| | | 0 | 1/2 | 5 | 5/2 | .155323 | | | 1 | 1/2 | 2 | 11/2 | .459805 |
| | | 0 | 1/2 | 5 | 9/2 | -.171501 | | | 1 | 1/2 | 4 | 3/2 | -.417517 |
| | | 0 | 1/2 | 5 | 11/2 | -.000558 | | | 1 | 1/2 | 4 | 5/2 | -.123349 |
| | | 0 | 1/2 | 5 | 15/2 | .234163 | | | 1 | 1/2 | 4 | 9/2 | -.349409 |
| | | 0 | 1/2 | 8 | 9/2 | .099257 | | | 1 | 1/2 | 4 | 11/2 | .176784 |
| | | 0 | 1/2 | 8 | 11/2 | .376637 | | | 1 | 1/2 | 4 | 15/2 | -.268631 |
| | | 0 | 1/2 | 8 | 15/2 | -.115172 | | | 1 | 1/2 | 6 | 3/2 | .069781 |
| | | 1 | 1/2 | 2 | 5/2 | -.136469 | | | 1 | 1/2 | 6 | 5/2 | -.132288 |
| | | 1 | 1/2 | 2 | 9/2 | -.035400 | | | 1 | 1/2 | 6 | 9/2 | -.045108 |
| | | 1 | 1/2 | 2 | 11/2 | .406314 | | | 1 | 1/2 | 6 | 11/2 | -.044224 |
| | | 1 | 1/2 | 4 | 3/2 | .424989 | | | 1 | 1/2 | 6 | 15/2 | -.170204 |
| | | 1 | 1/2 | 4 | 5/2 | -.114061 | 9/2 | 6 | 0 | 1/2 | 2 | 5/2 | .304071 |
| | | 1 | 1/2 | 4 | 9/2 | .471706 | | | 0 | 1/2 | 2 | 9/2 | -.071750 |
| | | 1 | 1/2 | 4 | 11/2 | .198569 | | | 0 | 1/2 | 2 | 11/2 | .423651 |
| | | 1 | 1/2 | 4 | 15/2 | -.300969 | | | 0 | 1/2 | 4 | 3/2 | .220555 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$v = 5 \quad t = 1/2$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9/2 | 6 | 0 | 1/2 | 4 | 5/2 | -.181396 | 11/2 | 1 | 0 | 1/2 | 8 | 5/2 | -.093444 |
| | | 0 | 1/2 | 4 | 9/2 | .062060 | | | 0 | 1/2 | 8 | 9/2 | -.135089 |
| | | 0 | 1/2 | 4 | 11/2 | .540068 | | | 0 | 1/2 | 8 | 11/2 | .394544 |
| | | 0 | 1/2 | 4 | 15/2 | .041754 | | | 0 | 1/2 | 8 | 15/2 | .735759 |
| | | 0 | 1/2 | 5 | 3/2 | -.346201 | | | 1 | 1/2 | 2 | 9/2 | -.308290 |
| | | 0 | 1/2 | 5 | 5/2 | -.143600 | | | 1 | 1/2 | 2 | 11/2 | -.362368 |
| | | 0 | 1/2 | 5 | 9/2 | .447253 | | | 1 | 1/2 | 2 | 15/2 | .119276 |
| | | 0 | 1/2 | 5 | 11/2 | -.051898 | | | 1 | 1/2 | 4 | 3/2 | .133220 |
| | | 0 | 1/2 | 5 | 15/2 | .014238 | | | 1 | 1/2 | 4 | 5/2 | -.110060 |
| | | 0 | 1/2 | 8 | 9/2 | .024410 | | | 1 | 1/2 | 4 | 9/2 | .417846 |
| | | 0 | 1/2 | 8 | 11/2 | -.007512 | | | 1 | 1/2 | 4 | 11/2 | .378192 |
| | | 0 | 1/2 | 8 | 15/2 | -.006008 | | | 1 | 1/2 | 4 | 15/2 | .353388 |
| | | 1 | 1/2 | 2 | 5/2 | .251255 | | | 1 | 1/2 | 6 | 3/2 | .056955 |
| | | 1 | 1/2 | 2 | 9/2 | .335617 | | | 1 | 1/2 | 6 | 5/2 | .054437 |
| | | 1 | 1/2 | 2 | 11/2 | .184818 | | | 1 | 1/2 | 6 | 9/2 | -.245335 |
| | | 1 | 1/2 | 4 | 3/2 | -.470909 | | | 1 | 1/2 | 6 | 11/2 | .131642 |
| | | 1 | 1/2 | 4 | 5/2 | .246479 | | | 1 | 1/2 | 6 | 15/2 | -.450917 |
| | | 1 | 1/2 | 4 | 9/2 | .451951 | 11/2 | 2 | 0 | 1/2 | 2 | 9/2 | .101176 |
| | | 1 | 1/2 | 4 | 11/2 | -.037279 | | | 0 | 1/2 | 2 | 11/2 | .261250 |
| | | 1 | 1/2 | 4 | 15/2 | .080778 | | | 0 | 1/2 | 2 | 15/2 | -.163926 |
| | | 1 | 1/2 | 6 | 3/2 | .081551 | | | 0 | 1/2 | 4 | 3/2 | .442544 |
| | | 1 | 1/2 | 6 | 5/2 | -.412969 | | | 0 | 1/2 | 4 | 5/2 | .074740 |
| | | 1 | 1/2 | 6 | 9/2 | .341169 | | | 0 | 1/2 | 4 | 9/2 | -.133450 |
| | | 1 | 1/2 | 6 | 11/2 | -.029482 | | | 0 | 1/2 | 4 | 11/2 | -.081731 |
| | | 1 | 1/2 | 6 | 15/2 | -.030539 | | | 0 | 1/2 | 4 | 15/2 | .083502 |
| 9/2 | 7 | 0 | 1/2 | 2 | 5/2 | .249649 | | | 0 | 1/2 | 5 | 3/2 | -.276192 |
| | | 0 | 1/2 | 2 | 9/2 | .106088 | | | 0 | 1/2 | 5 | 5/2 | -.485668 |
| | | 0 | 1/2 | 2 | 11/2 | -.128327 | | | 0 | 1/2 | 5 | 9/2 | -.365962 |
| | | 0 | 1/2 | 4 | 3/2 | .133144 | | | 0 | 1/2 | 5 | 11/2 | .064964 |
| | | 0 | 1/2 | 4 | 5/2 | .294218 | | | 0 | 1/2 | 5 | 15/2 | -.227329 |
| | | 0 | 1/2 | 4 | 9/2 | .255522 | | | 0 | 1/2 | 8 | 5/2 | -.104865 |
| | | 0 | 1/2 | 4 | 11/2 | .118676 | | | 0 | 1/2 | 8 | 9/2 | -.244506 |
| | | 0 | 1/2 | 4 | 15/2 | -.563663 | | | 0 | 1/2 | 8 | 11/2 | .226534 |
| | | 0 | 1/2 | 5 | 3/2 | -.191275 | | | 0 | 1/2 | 8 | 15/2 | .194081 |
| | | 0 | 1/2 | 5 | 5/2 | .430908 | | | 1 | 1/2 | 2 | 9/2 | .211269 |
| | | 0 | 1/2 | 5 | 9/2 | -.113468 | | | 1 | 1/2 | 2 | 11/2 | .243822 |
| | | 0 | 1/2 | 5 | 11/2 | .067384 | | | 1 | 1/2 | 2 | 15/2 | -.157939 |
| | | 0 | 1/2 | 5 | 15/2 | .056570 | | | 1 | 1/2 | 4 | 3/2 | -.164911 |
| | | 0 | 1/2 | 8 | 9/2 | -.010497 | | | 1 | 1/2 | 4 | 5/2 | .123742 |
| | | 0 | 1/2 | 8 | 11/2 | -.406840 | | | 1 | 1/2 | 4 | 9/2 | .008980 |
| | | 0 | 1/2 | 8 | 15/2 | .007606 | | | 1 | 1/2 | 4 | 11/2 | -.409656 |
| | | 1 | 1/2 | 2 | 5/2 | -.226503 | | | 1 | 1/2 | 4 | 15/2 | .593446 |
| | | 1 | 1/2 | 2 | 9/2 | -.055837 | | | 1 | 1/2 | 6 | 3/2 | -.326065 |
| | | 1 | 1/2 | 2 | 11/2 | .151601 | | | 1 | 1/2 | 6 | 5/2 | -.051290 |
| | | 1 | 1/2 | 4 | 3/2 | .320776 | | | 1 | 1/2 | 6 | 9/2 | -.267724 |
| | | 1 | 1/2 | 4 | 5/2 | .319064 | | | 1 | 1/2 | 6 | 11/2 | -.204983 |
| | | 1 | 1/2 | 4 | 9/2 | .250652 | | | 1 | 1/2 | 6 | 15/2 | -.292820 |
| | | 1 | 1/2 | 4 | 11/2 | -.155352 | 11/2 | 3 | 0 | 1/2 | 2 | 9/2 | .260176 |
| | | 1 | 1/2 | 4 | 15/2 | .071934 | | | 0 | 1/2 | 2 | 11/2 | .203671 |
| | | 1 | 1/2 | 6 | 3/2 | .282912 | | | 0 | 1/2 | 2 | 15/2 | -.350370 |
| | | 1 | 1/2 | 6 | 5/2 | -.038147 | | | 0 | 1/2 | 4 | 3/2 | -.144404 |
| | | 1 | 1/2 | 6 | 9/2 | -.210670 | | | 0 | 1/2 | 4 | 5/2 | .009489 |
| | | 1 | 1/2 | 6 | 11/2 | -.635170 | | | 0 | 1/2 | 4 | 9/2 | .058405 |
| | | 1 | 1/2 | 6 | 15/2 | -.310555 | | | 0 | 1/2 | 4 | 11/2 | .024192 |
| 11/2 | 1 | 0 | 1/2 | 2 | 9/2 | .019396 | | | 0 | 1/2 | 4 | 15/2 | .077926 |
| | | 0 | 1/2 | 2 | 11/2 | -.162998 | | | 0 | 1/2 | 5 | 3/2 | -.113852 |
| | | 0 | 1/2 | 2 | 15/2 | -.118526 | | | 0 | 1/2 | 5 | 5/2 | .237327 |
| | | 0 | 1/2 | 4 | 3/2 | -.226420 | | | 0 | 1/2 | 5 | 9/2 | .153058 |
| | | 0 | 1/2 | 4 | 5/2 | -.028474 | | | 0 | 1/2 | 5 | 11/2 | -.421125 |
| | | 0 | 1/2 | 4 | 9/2 | -.095817 | | | 0 | 1/2 | 5 | 15/2 | -.098745 |
| | | 0 | 1/2 | 4 | 11/2 | .299310 | | | 0 | 1/2 | 8 | 5/2 | -.146940 |
| | | 0 | 1/2 | 4 | 15/2 | -.008583 | | | 0 | 1/2 | 8 | 9/2 | -.590912 |
| | | 0 | 1/2 | 5 | 3/2 | .065392 | | | 0 | 1/2 | 8 | 11/2 | -.259341 |
| | | 0 | 1/2 | 5 | 5/2 | .255615 | | | 0 | 1/2 | 8 | 15/2 | -.138635 |
| | | 0 | 1/2 | 5 | 9/2 | -.066627 | | | 1 | 1/2 | 2 | 9/2 | .111311 |
| | | 0 | 1/2 | 5 | 11/2 | -.067222 | | | 1 | 1/2 | 2 | 11/2 | -.097055 |
| | | 0 | 1/2 | 5 | 15/2 | .074350 | | | 1 | 1/2 | 2 | 15/2 | .506344 |

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

$$v = 5 \quad t = 1/2$$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 11/2 | 3 | 1 | 1/2 | 4 | 3/2 | .283960 |
|  |  | 1 | 1/2 | 4 | 5/2 | -.145184 |
|  |  | 1 | 1/2 | 4 | 9/2 | .036066 |
|  |  | 1 | 1/2 | 4 | 11/2 | -.008911 |
|  |  | 1 | 1/2 | 4 | 15/2 | .248573 |
|  |  | 1 | 1/2 | 6 | 3/2 | -.311139 |
|  |  | 1 | 1/2 | 6 | 5/2 | .138556 |
|  |  | 1 | 1/2 | 6 | 9/2 | -.278085 |
|  |  | 1 | 1/2 | 6 | 11/2 | -.005785 |
|  |  | 1 | 1/2 | 6 | 15/2 | .602955 |
| 11/2 | 4 | 0 | 1/2 | 2 | 9/2 | -.014630 |
|  |  | 0 | 1/2 | 2 | 11/2 | -.223128 |
|  |  | 0 | 1/2 | 2 | 15/2 | .091097 |
|  |  | 0 | 1/2 | 4 | 3/2 | -.126726 |
|  |  | 0 | 1/2 | 4 | 5/2 | -.002330 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.223741 |
|  |  | 0 | 1/2 | 4 | 11/2 | .189814 |
|  |  | 0 | 1/2 | 4 | 15/2 | .434459 |
|  |  | 0 | 1/2 | 5 | 3/2 | -.118798 |
|  |  | 0 | 1/2 | 5 | 5/2 | .150349 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.026286 |
|  |  | 0 | 1/2 | 5 | 11/2 | .168060 |
|  |  | 0 | 1/2 | 5 | 15/2 | -.426330 |
|  |  | 0 | 1/2 | 8 | 5/2 | -.551305 |
|  |  | 0 | 1/2 | 8 | 9/2 | .114884 |
|  |  | 0 | 1/2 | 8 | 11/2 | .114237 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.270549 |
|  |  | 1 | 1/2 | 2 | 9/2 | -.442256 |
|  |  | 1 | 1/2 | 2 | 11/2 | .301784 |
|  |  | 1 | 1/2 | 2 | 15/2 | .314884 |
|  |  | 1 | 1/2 | 4 | 3/2 | .022706 |
|  |  | 1 | 1/2 | 4 | 5/2 | -.043650 |
|  |  | 1 | 1/2 | 4 | 9/2 | -.158091 |
|  |  | 1 | 1/2 | 4 | 11/2 | .169426 |
|  |  | 1 | 1/2 | 4 | 15/2 | .054247 |
|  |  | 1 | 1/2 | 6 | 3/2 | -.087346 |
|  |  | 1 | 1/2 | 6 | 5/2 | .176870 |
|  |  | 1 | 1/2 | 6 | 9/2 | .275318 |
|  |  | 1 | 1/2 | 6 | 11/2 | -.650617 |
|  |  | 1 | 1/2 | 6 | 15/2 | -.130797 |
| 11/2 | 5 | 0 | 1/2 | 2 | 9/2 | .105836 |
|  |  | 0 | 1/2 | 2 | 11/2 | -.001744 |
|  |  | 0 | 1/2 | 2 | 15/2 | .438483 |
|  |  | 0 | 1/2 | 4 | 3/2 | -.218864 |
|  |  | 0 | 1/2 | 4 | 5/2 | .101028 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.075587 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.068454 |
|  |  | 0 | 1/2 | 4 | 15/2 | .219613 |
|  |  | 0 | 1/2 | 5 | 3/2 | -.459068 |
|  |  | 0 | 1/2 | 5 | 5/2 | -.199986 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.084587 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.434780 |
|  |  | 0 | 1/2 | 5 | 15/2 | .240865 |
|  |  | 0 | 1/2 | 8 | 5/2 | -.096466 |
|  |  | 0 | 1/2 | 8 | 9/2 | .202461 |
|  |  | 0 | 1/2 | 8 | 11/2 | -.266734 |
|  |  | 0 | 1/2 | 8 | 15/2 | .231095 |
|  |  | 1 | 1/2 | 2 | 9/2 | .450305 |
|  |  | 1 | 1/2 | 2 | 11/2 | .289309 |
|  |  | 1 | 1/2 | 2 | 15/2 | .122562 |
|  |  | 1 | 1/2 | 4 | 3/2 | -.330434 |
|  |  | 1 | 1/2 | 4 | 5/2 | -.219440 |
|  |  | 1 | 1/2 | 4 | 9/2 | -.051261 |
|  |  | 1 | 1/2 | 4 | 11/2 | .346763 |
|  |  | 1 | 1/2 | 4 | 15/2 | .139211 |
|  |  | 1 | 1/2 | 6 | 3/2 | .488282 |
|  |  | 1 | 1/2 | 6 | 5/2 | .346605 |
| 11/2 | 5 | 1 | 1/2 | 6 | 9/2 | -.195011 |
|  |  | 1 | 1/2 | 6 | 11/2 | -.048077 |
|  |  | 1 | 1/2 | 6 | 15/2 | -.003991 |
| 11/2 | 6 | 0 | 1/2 | 2 | 9/2 | -.080530 |
|  |  | 0 | 1/2 | 2 | 11/2 | -.035374 |
|  |  | 0 | 1/2 | 2 | 15/2 | -.220608 |
|  |  | 0 | 1/2 | 4 | 3/2 | .273644 |
|  |  | 0 | 1/2 | 4 | 5/2 | .178131 |
|  |  | 0 | 1/2 | 4 | 9/2 | .203870 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.026413 |
|  |  | 0 | 1/2 | 4 | 15/2 | .485178 |
|  |  | 0 | 1/2 | 5 | 3/2 | .367488 |
|  |  | 0 | 1/2 | 5 | 5/2 | -.146898 |
|  |  | 0 | 1/2 | 5 | 9/2 | .182867 |
|  |  | 0 | 1/2 | 5 | 11/2 | .100632 |
|  |  | 0 | 1/2 | 5 | 15/2 | .346461 |
|  |  | 0 | 1/2 | 8 | 5/2 | -.319736 |
|  |  | 0 | 1/2 | 8 | 9/2 | .044234 |
|  |  | 0 | 1/2 | 8 | 11/2 | -.290254 |
|  |  | 0 | 1/2 | 8 | 15/2 | .225083 |
|  |  | 1 | 1/2 | 2 | 9/2 | -.146012 |
|  |  | 1 | 1/2 | 2 | 11/2 | .456985 |
|  |  | 1 | 1/2 | 2 | 15/2 | .058158 |
|  |  | 1 | 1/2 | 4 | 3/2 | .326700 |
|  |  | 1 | 1/2 | 4 | 5/2 | .630992 |
|  |  | 1 | 1/2 | 4 | 9/2 | .136966 |
|  |  | 1 | 1/2 | 4 | 11/2 | .003116 |
|  |  | 1 | 1/2 | 4 | 15/2 | -.155813 |
|  |  | 1 | 1/2 | 6 | 3/2 | .117850 |
|  |  | 1 | 1/2 | 6 | 5/2 | .270194 |
|  |  | 1 | 1/2 | 6 | 9/2 | -.301194 |
|  |  | 1 | 1/2 | 6 | 11/2 | .199671 |
|  |  | 1 | 1/2 | 6 | 15/2 | -.032432 |
| 11/2 | 7 | 0 | 1/2 | 2 | 9/2 | -.061623 |
|  |  | 0 | 1/2 | 2 | 11/2 | -.488470 |
|  |  | 0 | 1/2 | 2 | 15/2 | -.151598 |
|  |  | 0 | 1/2 | 4 | 3/2 | .036844 |
|  |  | 0 | 1/2 | 4 | 5/2 | .177258 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.543502 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.121849 |
|  |  | 0 | 1/2 | 4 | 15/2 | -.129632 |
|  |  | 0 | 1/2 | 5 | 3/2 | .199773 |
|  |  | 0 | 1/2 | 5 | 5/2 | -.332497 |
|  |  | 0 | 1/2 | 5 | 9/2 | .223964 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.355960 |
|  |  | 0 | 1/2 | 5 | 15/2 | .065283 |
|  |  | 0 | 1/2 | 8 | 5/2 | .014860 |
|  |  | 0 | 1/2 | 8 | 9/2 | -.085928 |
|  |  | 0 | 1/2 | 8 | 11/2 | .127636 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.138947 |
|  |  | 1 | 1/2 | 2 | 9/2 | .129900 |
|  |  | 1 | 1/2 | 2 | 11/2 | .229101 |
|  |  | 1 | 1/2 | 2 | 15/2 | -.175847 |
|  |  | 1 | 1/2 | 4 | 3/2 | .564661 |
|  |  | 1 | 1/2 | 4 | 5/2 | -.305275 |
|  |  | 1 | 1/2 | 4 | 9/2 | .351659 |
|  |  | 1 | 1/2 | 4 | 11/2 | -.156647 |
|  |  | 1 | 1/2 | 4 | 15/2 | .038685 |
|  |  | 1 | 1/2 | 6 | 3/2 | .380124 |
|  |  | 1 | 1/2 | 6 | 5/2 | -.323088 |
|  |  | 1 | 1/2 | 6 | 9/2 | .020961 |
|  |  | 1 | 1/2 | 6 | 11/2 | -.291842 |
|  |  | 1 | 1/2 | 6 | 15/2 | .059102 |
| 13/2 | 1 | 0 | 1/2 | 2 | 9/2 | -.359722 |
|  |  | 0 | 1/2 | 2 | 11/2 | .068380 |
|  |  | 0 | 1/2 | 2 | 15/2 | .452892 |
|  |  | 0 | 1/2 | 4 | 5/2 | -.056297 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

$v = 5 \quad t = 1/2$

| J | α | $T_\lambda$ | $T_\mu$ | $j_\lambda$ | $j_\mu$ | D |
|---|---|---|---|---|---|---|
| 13/2 | 1 | 0 | 1/2 | 4 | 9/2 | .001008 |
| | | 0 | 1/2 | 4 | 11/2 | -.197569 |
| | | 0 | 1/2 | 4 | 15/2 | -.108939 |
| | | 0 | 1/2 | 5 | 3/2 | -.107250 |
| | | 0 | 1/2 | 5 | 5/2 | .098518 |
| | | 0 | 1/2 | 5 | 9/2 | -.281543 |
| | | 0 | 1/2 | 5 | 11/2 | .103331 |
| | | 0 | 1/2 | 5 | 15/2 | .175033 |
| | | 0 | 1/2 | 8 | 3/2 | .407545 |
| | | 0 | 1/2 | 8 | 5/2 | -.221901 |
| | | 0 | 1/2 | 8 | 9/2 | -.456502 |
| | | 0 | 1/2 | 8 | 11/2 | .121767 |
| | | 0 | 1/2 | 8 | 15/2 | -.162473 |
| | | 1 | 1/2 | 2 | 9/2 | .029470 |
| | | 1 | 1/2 | 2 | 11/2 | .055212 |
| | | 1 | 1/2 | 2 | 15/2 | .227970 |
| | | 1 | 1/2 | 4 | 5/2 | .012677 |
| | | 1 | 1/2 | 4 | 9/2 | .118280 |
| | | 1 | 1/2 | 4 | 11/2 | .258006 |
| | | 1 | 1/2 | 4 | 15/2 | -.632627 |
| | | 1 | 1/2 | 6 | 3/2 | .182505 |
| | | 1 | 1/2 | 6 | 5/2 | -.078398 |
| | | 1 | 1/2 | 6 | 9/2 | -.577709 |
| | | 1 | 1/2 | 6 | 11/2 | -.172367 |
| | | 1 | 1/2 | 6 | 15/2 | -.245490 |
| 13/2 | 2 | 0 | 1/2 | 2 | 9/2 | .217008 |
| | | 0 | 1/2 | 2 | 11/2 | .160689 |
| | | 0 | 1/2 | 2 | 15/2 | .308420 |
| | | 0 | 1/2 | 4 | 5/2 | -.172517 |
| | | 0 | 1/2 | 4 | 9/2 | -.252461 |
| | | 0 | 1/2 | 4 | 11/2 | -.118072 |
| | | 0 | 1/2 | 4 | 15/2 | .126705 |
| | | 0 | 1/2 | 5 | 3/2 | -.414612 |
| | | 0 | 1/2 | 5 | 5/2 | .367504 |
| | | 0 | 1/2 | 5 | 9/2 | .581815 |
| | | 0 | 1/2 | 5 | 11/2 | .099779 |
| | | 0 | 1/2 | 5 | 15/2 | .047455 |
| | | 0 | 1/2 | 8 | 3/2 | .084597 |
| | | 0 | 1/2 | 8 | 5/2 | .156629 |
| | | 0 | 1/2 | 8 | 9/2 | .037293 |
| | | 0 | 1/2 | 8 | 11/2 | .070440 |
| | | 0 | 1/2 | 8 | 15/2 | .112916 |
| | | 1 | 1/2 | 2 | 9/2 | -.337308 |
| | | 1 | 1/2 | 2 | 11/2 | -.174731 |
| | | 1 | 1/2 | 2 | 15/2 | -.063304 |
| | | 1 | 1/2 | 4 | 5/2 | .011786 |
| | | 1 | 1/2 | 4 | 9/2 | -.505880 |
| | | 1 | 1/2 | 4 | 11/2 | -.621908 |
| | | 1 | 1/2 | 4 | 15/2 | .034811 |
| | | 1 | 1/2 | 6 | 3/2 | .267467 |
| | | 1 | 1/2 | 6 | 5/2 | -.075517 |
| | | 1 | 1/2 | 6 | 9/2 | -.338648 |
| | | 1 | 1/2 | 6 | 11/2 | -.124111 |
| | | 1 | 1/2 | 6 | 15/2 | -.017989 |
| 13/2 | 3 | 0 | 1/2 | 2 | 9/2 | -.041106 |
| | | 0 | 1/2 | 2 | 11/2 | .303853 |
| | | 0 | 1/2 | 2 | 15/2 | -.288201 |
| | | 0 | 1/2 | 4 | 5/2 | .058478 |
| | | 0 | 1/2 | 4 | 9/2 | -.202842 |
| | | 0 | 1/2 | 4 | 11/2 | -.017360 |
| | | 0 | 1/2 | 4 | 15/2 | -.445864 |
| | | 0 | 1/2 | 5 | 3/2 | -.110468 |
| | | 0 | 1/2 | 5 | 5/2 | .060980 |
| | | 0 | 1/2 | 5 | 9/2 | .018911 |
| | | 0 | 1/2 | 5 | 11/2 | .167067 |
| | | 0 | 1/2 | 5 | 15/2 | .366428 |
| | | 0 | 1/2 | 8 | 3/2 | .056383 |
| 13/2 | 3 | 0 | 1/2 | 8 | 5/2 | -.491794 |
| | | 0 | 1/2 | 8 | 9/2 | .391184 |
| | | 0 | 1/2 | 8 | 11/2 | .038701 |
| | | 0 | 1/2 | 8 | 15/2 | .035210 |
| | | 1 | 1/2 | 2 | 9/2 | .059545 |
| | | 1 | 1/2 | 2 | 11/2 | -.198154 |
| | | 1 | 1/2 | 2 | 15/2 | .522365 |
| | | 1 | 1/2 | 4 | 5/2 | -.070289 |
| | | 1 | 1/2 | 4 | 9/2 | .098053 |
| | | 1 | 1/2 | 4 | 11/2 | -.205573 |
| | | 1 | 1/2 | 4 | 15/2 | .089835 |
| | | 1 | 1/2 | 6 | 3/2 | -.513827 |
| | | 1 | 1/2 | 6 | 5/2 | .348211 |
| | | 1 | 1/2 | 6 | 9/2 | -.166745 |
| | | 1 | 1/2 | 6 | 11/2 | -.396655 |
| | | 1 | 1/2 | 6 | 15/2 | .221428 |
| 13/2 | 4 | 0 | 1/2 | 2 | 9/2 | -.123586 |
| | | 0 | 1/2 | 2 | 11/2 | -.052132 |
| | | 0 | 1/2 | 2 | 15/2 | -.142233 |
| | | 0 | 1/2 | 4 | 5/2 | -.016469 |
| | | 0 | 1/2 | 4 | 9/2 | -.430721 |
| | | 0 | 1/2 | 4 | 11/2 | -.184931 |
| | | 0 | 1/2 | 4 | 15/2 | .046401 |
| | | 0 | 1/2 | 5 | 3/2 | -.019562 |
| | | 0 | 1/2 | 5 | 5/2 | .199360 |
| | | 0 | 1/2 | 5 | 9/2 | -.278872 |
| | | 0 | 1/2 | 5 | 11/2 | .291526 |
| | | 0 | 1/2 | 5 | 15/2 | -.221234 |
| | | 0 | 1/2 | 8 | 3/2 | -.010697 |
| | | 0 | 1/2 | 8 | 5/2 | .052585 |
| | | 0 | 1/2 | 8 | 9/2 | -.099702 |
| | | 0 | 1/2 | 8 | 11/2 | -.590855 |
| | | 0 | 1/2 | 8 | 15/2 | .354790 |
| | | 1 | 1/2 | 2 | 9/2 | .102631 |
| | | 1 | 1/2 | 2 | 11/2 | -.488248 |
| | | 1 | 1/2 | 2 | 15/2 | -.362780 |
| | | 1 | 1/2 | 4 | 5/2 | -.371539 |
| | | 1 | 1/2 | 4 | 9/2 | .297581 |
| | | 1 | 1/2 | 4 | 11/2 | -.185485 |
| | | 1 | 1/2 | 4 | 15/2 | -.360254 |
| | | 1 | 1/2 | 6 | 3/2 | .050228 |
| | | 1 | 1/2 | 6 | 5/2 | -.189195 |
| | | 1 | 1/2 | 6 | 9/2 | .255900 |
| | | 1 | 1/2 | 6 | 11/2 | -.322247 |
| | | 1 | 1/2 | 6 | 15/2 | .145061 |
| 13/2 | 5 | 0 | 1/2 | 2 | 9/2 | .115177 |
| | | 0 | 1/2 | 2 | 11/2 | -.221110 |
| | | 0 | 1/2 | 2 | 15/2 | .103951 |
| | | 0 | 1/2 | 4 | 5/2 | -.050689 |
| | | 0 | 1/2 | 4 | 9/2 | .360502 |
| | | 0 | 1/2 | 4 | 11/2 | -.339332 |
| | | 0 | 1/2 | 4 | 15/2 | -.386975 |
| | | 0 | 1/2 | 5 | 3/2 | -.037834 |
| | | 0 | 1/2 | 5 | 5/2 | -.255343 |
| | | 0 | 1/2 | 5 | 9/2 | .305538 |
| | | 0 | 1/2 | 5 | 11/2 | .020765 |
| | | 0 | 1/2 | 5 | 15/2 | -.363042 |
| | | 0 | 1/2 | 8 | 3/2 | .072044 |
| | | 0 | 1/2 | 8 | 5/2 | -.312035 |
| | | 0 | 1/2 | 8 | 9/2 | -.078327 |
| | | 0 | 1/2 | 8 | 11/2 | -.108662 |
| | | 0 | 1/2 | 8 | 15/2 | .341902 |
| | | 1 | 1/2 | 2 | 9/2 | .203352 |
| | | 1 | 1/2 | 2 | 11/2 | -.060196 |
| | | 1 | 1/2 | 2 | 15/2 | .221850 |
| | | 1 | 1/2 | 4 | 5/2 | .661430 |
| | | 1 | 1/2 | 4 | 9/2 | -.056709 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D_{(vt\alpha J_\lambda J_\mu}^{T_\lambda T_\mu J}$

V = 5    t = 1/2

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13/2 | 5 | 1 | 1/2 | 4 | 11/2 | -.049950 | 15/2 | 1 | 0 | 1/2 | 4 | 9/2 | .203837 |
| | | 1 | 1/2 | 4 | 15/2 | -.143722 | | | 0 | 1/2 | 4 | 11/2 | -.365886 |
| | | 1 | 1/2 | 6 | 3/2 | .401204 | | | 0 | 1/2 | 4 | 15/2 | -.342662 |
| | | 1 | 1/2 | 6 | 5/2 | .069403 | | | 0 | 1/2 | 5 | 5/2 | .076665 |
| | | 1 | 1/2 | 6 | 9/2 | .385951 | | | 0 | 1/2 | 5 | 9/2 | .180141 |
| | | 1 | 1/2 | 6 | 11/2 | -.328114 | | | 0 | 1/2 | 5 | 11/2 | .255175 |
| | | 1 | 1/2 | 6 | 15/2 | .139826 | | | 0 | 1/2 | 5 | 15/2 | .131340 |
| 13/2 | 6 | 0 | 1/2 | 2 | 9/2 | -.273226 | | | 0 | 1/2 | 8 | 3/2 | -.000312 |
| | | 0 | 1/2 | 2 | 11/2 | .519028 | | | 0 | 1/2 | 8 | 5/2 | .363994 |
| | | 0 | 1/2 | 2 | 15/2 | .009103 | | | 0 | 1/2 | 8 | 9/2 | .086203 |
| | | 0 | 1/2 | 4 | 5/2 | -.045955 | | | 0 | 1/2 | 8 | 11/2 | -.503675 |
| | | 0 | 1/2 | 4 | 9/2 | .013449 | | | 0 | 1/2 | 8 | 15/2 | -.429978 |
| | | 0 | 1/2 | 4 | 11/2 | .043640 | | | 1 | 1/2 | 2 | 11/2 | .555305 |
| | | 0 | 1/2 | 4 | 15/2 | .024909 | | | 1 | 1/2 | 2 | 15/2 | .375443 |
| | | 0 | 1/2 | 5 | 3/2 | .103931 | | | 1 | 1/2 | 4 | 9/2 | -.017407 |
| | | 0 | 1/2 | 5 | 5/2 | -.106101 | | | 1 | 1/2 | 4 | 11/2 | -.379346 |
| | | 0 | 1/2 | 5 | 9/2 | .020435 | | | 1 | 1/2 | 4 | 15/2 | -.210270 |
| | | 0 | 1/2 | 5 | 11/2 | -.332383 | | | 1 | 1/2 | 6 | 3/2 | -.030741 |
| | | 0 | 1/2 | 5 | 15/2 | -.369454 | | | 1 | 1/2 | 6 | 5/2 | .129428 |
| | | 0 | 1/2 | 8 | 3/2 | .491404 | | | 1 | 1/2 | 6 | 9/2 | .292077 |
| | | 0 | 1/2 | 8 | 5/2 | .178166 | | | 1 | 1/2 | 6 | 11/2 | .491550 |
| | | 0 | 1/2 | 8 | 9/2 | .298699 | | | 1 | 1/2 | 6 | 15/2 | -.132785 |
| | | 0 | 1/2 | 8 | 11/2 | -.052020 | 15/2 | 2 | 0 | 1/2 | 2 | 11/2 | -.280531 |
| | | 0 | 1/2 | 8 | 15/2 | .128286 | | | 0 | 1/2 | 2 | 15/2 | -.348265 |
| | | 1 | 1/2 | 2 | 9/2 | -.708006 | | | 0 | 1/2 | 4 | 9/2 | .102237 |
| | | 1 | 1/2 | 2 | 11/2 | .250901 | | | 0 | 1/2 | 4 | 11/2 | -.346728 |
| | | 1 | 1/2 | 2 | 15/2 | .111615 | | | 0 | 1/2 | 4 | 15/2 | .036907 |
| | | 1 | 1/2 | 4 | 5/2 | .155843 | | | 0 | 1/2 | 5 | 5/2 | .090698 |
| | | 1 | 1/2 | 4 | 9/2 | .528794 | | | 0 | 1/2 | 5 | 9/2 | -.148376 |
| | | 1 | 1/2 | 4 | 11/2 | -.222052 | | | 0 | 1/2 | 5 | 11/2 | .199155 |
| | | 1 | 1/2 | 4 | 15/2 | -.147191 | | | 0 | 1/2 | 5 | 15/2 | -.306766 |
| | | 1 | 1/2 | 6 | 3/2 | -.021180 | | | 0 | 1/2 | 8 | 3/2 | -.487827 |
| | | 1 | 1/2 | 6 | 5/2 | -.081732 | | | 0 | 1/2 | 8 | 5/2 | .193353 |
| | | 1 | 1/2 | 6 | 9/2 | .128672 | | | 0 | 1/2 | 8 | 9/2 | .278316 |
| | | 1 | 1/2 | 6 | 11/2 | .078059 | | | 0 | 1/2 | 8 | 11/2 | .387308 |
| | | 1 | 1/2 | 6 | 15/2 | .136594 | | | 0 | 1/2 | 8 | 15/2 | -.033797 |
| 13/2 | 7 | 0 | 1/2 | 2 | 9/2 | .040257 | | | 1 | 1/2 | 2 | 11/2 | .346529 |
| | | 0 | 1/2 | 2 | 11/2 | .029062 | | | 1 | 1/2 | 2 | 15/2 | -.506148 |
| | | 0 | 1/2 | 2 | 15/2 | .221127 | | | 1 | 1/2 | 4 | 9/2 | -.042530 |
| | | 0 | 1/2 | 4 | 5/2 | .514105 | | | 1 | 1/2 | 4 | 11/2 | -.069903 |
| | | 0 | 1/2 | 4 | 9/2 | -.119219 | | | 1 | 1/2 | 4 | 15/2 | -.518388 |
| | | 0 | 1/2 | 4 | 11/2 | .590427 | | | 1 | 1/2 | 6 | 3/2 | -.287835 |
| | | 0 | 1/2 | 4 | 15/2 | -.275440 | | | 1 | 1/2 | 6 | 5/2 | .312020 |
| | | 0 | 1/2 | 5 | 3/2 | -.058126 | | | 1 | 1/2 | 6 | 9/2 | -.354999 |
| | | 0 | 1/2 | 5 | 5/2 | -.215400 | | | 1 | 1/2 | 6 | 11/2 | -.127998 |
| | | 0 | 1/2 | 5 | 9/2 | .128317 | | | 1 | 1/2 | 6 | 15/2 | .160305 |
| | | 0 | 1/2 | 5 | 11/2 | .319378 | 15/2 | 3 | 0 | 1/2 | 2 | 11/2 | -.013677 |
| | | 0 | 1/2 | 5 | 15/2 | -.089174 | | | 0 | 1/2 | 2 | 15/2 | -.075328 |
| | | 0 | 1/2 | 8 | 3/2 | .117289 | | | 0 | 1/2 | 4 | 9/2 | .130426 |
| | | 0 | 1/2 | 8 | 5/2 | .154308 | | | 0 | 1/2 | 4 | 11/2 | -.333474 |
| | | 0 | 1/2 | 8 | 9/2 | -.149119 | | | 0 | 1/2 | 4 | 15/2 | -.092963 |
| | | 0 | 1/2 | 8 | 11/2 | -.051354 | | | 0 | 1/2 | 5 | 5/2 | .162955 |
| | | 0 | 1/2 | 8 | 15/2 | .083742 | | | 0 | 1/2 | 5 | 9/2 | -.209595 |
| | | 1 | 1/2 | 2 | 9/2 | .083363 | | | 0 | 1/2 | 5 | 11/2 | -.301264 |
| | | 1 | 1/2 | 2 | 11/2 | .405093 | | | 0 | 1/2 | 5 | 15/2 | .491937 |
| | | 1 | 1/2 | 2 | 15/2 | -.297883 | | | 0 | 1/2 | 8 | 3/2 | .041711 |
| | | 1 | 1/2 | 4 | 5/2 | -.215234 | | | 0 | 1/2 | 8 | 5/2 | .388982 |
| | | 1 | 1/2 | 4 | 9/2 | .052834 | | | 0 | 1/2 | 8 | 9/2 | -.369171 |
| | | 1 | 1/2 | 4 | 11/2 | -.097790 | | | 0 | 1/2 | 8 | 11/2 | .179728 |
| | | 1 | 1/2 | 4 | 15/2 | -.121783 | | | 0 | 1/2 | 8 | 15/2 | .363865 |
| | | 1 | 1/2 | 6 | 3/2 | .285455 | | | 1 | 1/2 | 2 | 11/2 | .244266 |
| | | 1 | 1/2 | 6 | 5/2 | .709785 | | | 1 | 1/2 | 2 | 15/2 | -.159042 |
| | | 1 | 1/2 | 6 | 9/2 | -.075077 | | | 1 | 1/2 | 4 | 9/2 | .383133 |
| | | 1 | 1/2 | 6 | 11/2 | -.075113 | | | 1 | 1/2 | 4 | 11/2 | -.130909 |
| | | 1 | 1/2 | 6 | 15/2 | .264854 | | | 1 | 1/2 | 4 | 15/2 | .330687 |
| 15/2 | 1 | 0 | 1/2 | 2 | 11/2 | .061853 | | | 1 | 1/2 | 6 | 3/2 | .376637 |
| | | 0 | 1/2 | 2 | 15/2 | .064420 | | | 1 | 1/2 | 6 | 5/2 | -.004176 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

V = 5     t = 1/2

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 15/2 | 3 | 1 | 1/2 | 6 | 9/2 | -.100350 |
| | | 1 | 1/2 | 6 | 11/2 | .167380 |
| | | 1 | 1/2 | 6 | 15/2 | .679558 |
| 15/2 | 4 | 0 | 1/2 | 2 | 11/2 | *.094173 |
| | | 0 | 1/2 | 2 | 15/2 | *.484010 |
| | | 0 | 1/2 | 4 | 9/2 | .363651 |
| | | 0 | 1/2 | 4 | 11/2 | .293829 |
| | | 0 | 1/2 | 4 | 15/2 | .054733 |
| | | 0 | 1/2 | 5 | 5/2 | *.389620 |
| | | 0 | 1/2 | 5 | 9/2 | .373833 |
| | | 0 | 1/2 | 5 | 11/2 | *.097766 |
| | | 0 | 1/2 | 5 | 15/2 | .128611 |
| | | 0 | 1/2 | 8 | 3/2 | -.334020 |
| | | 0 | 1/2 | 8 | 5/2 | .010271 |
| | | 0 | 1/2 | 8 | 9/2 | -.262054 |
| | | 0 | 1/2 | 8 | 11/2 | *.189123 |
| | | 0 | 1/2 | 8 | 15/2 | .039035 |
| | | 1 | 1/2 | 2 | 11/2 | *.203614 |
| | | 1 | 1/2 | 2 | 15/2 | .247350 |
| | | 1 | 1/2 | 4 | 9/2 | .544453 |
| | | 1 | 1/2 | 4 | 11/2 | *.379875 |
| | | 1 | 1/2 | 4 | 15/2 | *.199653 |
| | | 1 | 1/2 | 6 | 3/2 | *.254089 |
| | | 1 | 1/2 | 6 | 5/2 | *.398494 |
| | | 1 | 1/2 | 6 | 9/2 | *.432572 |
| | | 1 | 1/2 | 6 | 11/2 | .006533 |
| | | 1 | 1/2 | 6 | 15/2 | *.079016 |
| 15/2 | 5 | 0 | 1/2 | 2 | 11/2 | .507392 |
| | | 0 | 1/2 | 2 | 15/2 | *.191303 |
| | | 0 | 1/2 | 4 | 9/2 | *.321770 |
| | | 0 | 1/2 | 4 | 11/2 | *.323731 |
| | | 0 | 1/2 | 4 | 15/2 | .182043 |
| | | 0 | 1/2 | 5 | 5/2 | -.045072 |
| | | 0 | 1/2 | 5 | 9/2 | .445533 |
| | | 0 | 1/2 | 5 | 11/2 | .325210 |
| | | 0 | 1/2 | 5 | 15/2 | *.027472 |
| | | 0 | 1/2 | 8 | 3/2 | .058962 |
| | | 0 | 1/2 | 8 | 5/2 | -.014615 |
| | | 0 | 1/2 | 8 | 9/2 | *.293985 |
| | | 0 | 1/2 | 8 | 11/2 | .259244 |
| | | 0 | 1/2 | 8 | 15/2 | .010389 |
| | | 1 | 1/2 | 2 | 11/2 | *.083875 |
| | | 1 | 1/2 | 2 | 15/2 | *.004131 |
| | | 1 | 1/2 | 4 | 9/2 | .529704 |
| | | 1 | 1/2 | 4 | 11/2 | .446785 |
| | | 1 | 1/2 | 4 | 15/2 | .042390 |
| | | 1 | 1/2 | 6 | 3/2 | *.525302 |
| | | 1 | 1/2 | 6 | 5/2 | .267242 |
| | | 1 | 1/2 | 6 | 9/2 | .340763 |
| | | 1 | 1/2 | 6 | 11/2 | .198274 |
| | | 1 | 1/2 | 6 | 15/2 | .090246 |
| 15/2 | 6 | 0 | 1/2 | 2 | 11/2 | .109526 |
| | | 0 | 1/2 | 2 | 15/2 | *.196816 |
| | | 0 | 1/2 | 4 | 9/2 | *.315286 |
| | | 0 | 1/2 | 4 | 11/2 | *.021415 |
| | | 0 | 1/2 | 4 | 15/2 | *.482179 |
| | | 0 | 1/2 | 5 | 5/2 | .393598 |
| | | 0 | 1/2 | 5 | 9/2 | .062547 |
| | | 0 | 1/2 | 5 | 11/2 | *.421768 |
| | | 0 | 1/2 | 5 | 15/2 | *.181503 |
| | | 0 | 1/2 | 8 | 3/2 | *.324405 |
| | | 0 | 1/2 | 8 | 5/2 | *.282678 |
| | | 0 | 1/2 | 8 | 9/2 | *.190553 |
| | | 0 | 1/2 | 8 | 11/2 | *.122362 |
| | | 0 | 1/2 | 8 | 15/2 | *.104004 |
| | | 1 | 1/2 | 2 | 11/2 | *.501698 |
| | | 1 | 1/2 | 2 | 15/2 | *.291891 |
| 15/2 | 6 | 1 | 1/2 | 4 | 9/2 | .044619 |
| | | 1 | 1/2 | 4 | 11/2 | *.218266 |
| | | 1 | 1/2 | 4 | 15/2 | *.000492 |
| | | 1 | 1/2 | 6 | 3/2 | .225510 |
| | | 1 | 1/2 | 6 | 5/2 | .422259 |
| | | 1 | 1/2 | 6 | 9/2 | *.152699 |
| | | 1 | 1/2 | 6 | 11/2 | .552546 |
| | | 1 | 1/2 | 6 | 15/2 | *.235979 |
| 15/2 | 7 | 0 | 1/2 | 2 | 11/2 | *.211564 |
| | | 0 | 1/2 | 2 | 15/2 | .189951 |
| | | 0 | 1/2 | 4 | 9/2 | .163424 |
| | | 0 | 1/2 | 4 | 11/2 | .548090 |
| | | 0 | 1/2 | 4 | 15/2 | .431970 |
| | | 0 | 1/2 | 5 | 5/2 | *.347692 |
| | | 0 | 1/2 | 5 | 9/2 | *.202289 |
| | | 0 | 1/2 | 5 | 11/2 | *.097884 |
| | | 0 | 1/2 | 5 | 15/2 | .091305 |
| | | 0 | 1/2 | 8 | 3/2 | .263970 |
| | | 0 | 1/2 | 8 | 5/2 | *.170994 |
| | | 0 | 1/2 | 8 | 9/2 | .071343 |
| | | 0 | 1/2 | 8 | 11/2 | .142522 |
| | | 0 | 1/2 | 8 | 15/2 | .318435 |
| | | 1 | 1/2 | 2 | 11/2 | *.210958 |
| | | 1 | 1/2 | 2 | 15/2 | .122104 |
| | | 1 | 1/2 | 4 | 9/2 | *.159289 |
| | | 1 | 1/2 | 4 | 11/2 | .191868 |
| | | 1 | 1/2 | 4 | 15/2 | .227176 |
| | | 1 | 1/2 | 6 | 3/2 | .108084 |
| | | 1 | 1/2 | 6 | 5/2 | *.567186 |
| | | 1 | 1/2 | 6 | 9/2 | *.168156 |
| | | 1 | 1/2 | 6 | 11/2 | *.679140 |
| | | 1 | 1/2 | 6 | 15/2 | .062467 |
| 17/2 | 1 | 0 | 1/2 | 2 | 15/2 | .355568 |
| | | 0 | 1/2 | 4 | 9/2 | .252462 |
| | | 0 | 1/2 | 4 | 11/2 | .248563 |
| | | 0 | 1/2 | 4 | 15/2 | *.482703 |
| | | 0 | 1/2 | 5 | 9/2 | .235854 |
| | | 0 | 1/2 | 5 | 11/2 | .273853 |
| | | 0 | 1/2 | 5 | 15/2 | .196408 |
| | | 0 | 1/2 | 8 | 3/2 | .024170 |
| | | 0 | 1/2 | 8 | 5/2 | .086766 |
| | | 0 | 1/2 | 8 | 9/2 | .323259 |
| | | 0 | 1/2 | 8 | 11/2 | .456541 |
| | | 0 | 1/2 | 8 | 15/2 | .157516 |
| | | 1 | 1/2 | 2 | 15/2 | .114651 |
| | | 1 | 1/2 | 4 | 9/2 | .206378 |
| | | 1 | 1/2 | 4 | 11/2 | .209322 |
| | | 1 | 1/2 | 4 | 15/2 | .121778 |
| | | 1 | 1/2 | 6 | 5/2 | *.628086 |
| | | 1 | 1/2 | 6 | 9/2 | *.297446 |
| | | 1 | 1/2 | 6 | 11/2 | .537148 |
| | | 1 | 1/2 | 6 | 15/2 | *.337821 |
| 17/2 | 2 | 0 | 1/2 | 2 | 15/2 | *.020677 |
| | | 0 | 1/2 | 4 | 9/2 | .095289 |
| | | 0 | 1/2 | 4 | 11/2 | .196391 |
| | | 0 | 1/2 | 4 | 15/2 | *.106065 |
| | | 0 | 1/2 | 5 | 9/2 | *.109089 |
| | | 0 | 1/2 | 5 | 11/2 | *.057341 |
| | | 0 | 1/2 | 5 | 15/2 | *.156268 |
| | | 0 | 1/2 | 8 | 3/2 | .070251 |
| | | 0 | 1/2 | 8 | 5/2 | .090636 |
| | | 0 | 1/2 | 8 | 9/2 | -.374686 |
| | | 0 | 1/2 | 8 | 11/2 | .409416 |
| | | 0 | 1/2 | 8 | 15/2 | -.761515 |
| | | 1 | 1/2 | 2 | 15/2 | .406676 |
| | | 1 | 1/2 | 4 | 9/2 | -.112603 |
| | | 1 | 1/2 | 4 | 11/2 | -.175557 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D_{(vt)\alpha J_\lambda J_\mu}^{T_\lambda T_\mu J}$

$v = 5 \quad t = 1/2$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17/2 | 2 | 1 | 1/2 | 4 | 15/2 | .653033 | 19/2 | 1 | 0 | 1/2 | 4 | 15/2 | .070853 |
|  |  | 1 | 1/2 | 6 | 5/2 | -.200323 |  |  | 0 | 1/2 | 5 | 9/2 | .014617 |
|  |  | 1 | 1/2 | 6 | 9/2 | -.325386 |  |  | 0 | 1/2 | 5 | 11/2 | -.430905 |
|  |  | 1 | 1/2 | 6 | 11/2 | -.327981 |  |  | 0 | 1/2 | 5 | 15/2 | -.207108 |
|  |  | 1 | 1/2 | 6 | 15/2 | .333296 |  |  | 0 | 1/2 | 8 | 3/2 | -.368957 |
| 17/2 | 3 | 0 | 1/2 | 2 | 15/2 | -.421140 |  |  | 0 | 1/2 | 8 | 5/2 | -.064985 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.467730 |  |  | 0 | 1/2 | 8 | 9/2 | .476769 |
|  |  | 0 | 1/2 | 4 | 11/2 | .181284 |  |  | 0 | 1/2 | 8 | 11/2 | .284462 |
|  |  | 0 | 1/2 | 4 | 15/2 | -.327467 |  |  | 0 | 1/2 | 8 | 15/2 | .022750 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.016243 |  |  | 1 | 1/2 | 2 | 15/2 | -.220331 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.042088 |  |  | 1 | 1/2 | 4 | 11/2 | -.049069 |
|  |  | 0 | 1/2 | 5 | 15/2 | .211416 |  |  | 1 | 1/2 | 4 | 15/2 | .553104 |
|  |  | 0 | 1/2 | 8 | 3/2 | -.392260 |  |  | 1 | 1/2 | 6 | 9/2 | .786592 |
|  |  | 0 | 1/2 | 8 | 5/2 | .508687 |  |  | 1 | 1/2 | 6 | 11/2 | .138149 |
|  |  | 0 | 1/2 | 8 | 9/2 | -.033862 |  |  | 1 | 1/2 | 6 | 15/2 | .072872 |
|  |  | 0 | 1/2 | 8 | 11/2 | .013300 | 19/2 | 2 | 0 | 1/2 | 2 | 15/2 | -.042179 |
|  |  | 0 | 1/2 | 8 | 15/2 | .055551 |  |  | 0 | 1/2 | 4 | 11/2 | .186438 |
|  |  | 1 | 1/2 | 2 | 15/2 | .340878 |  |  | 0 | 1/2 | 4 | 15/2 | -.309171 |
|  |  | 1 | 1/2 | 4 | 9/2 | -.515918 |  |  | 0 | 1/2 | 5 | 9/2 | .157094 |
|  |  | 1 | 1/2 | 4 | 11/2 | .655512 |  |  | 0 | 1/2 | 5 | 11/2 | .085271 |
|  |  | 1 | 1/2 | 4 | 15/2 | -.139855 |  |  | 0 | 1/2 | 5 | 15/2 | -.281148 |
|  |  | 1 | 1/2 | 6 | 5/2 | -.134646 |  |  | 0 | 1/2 | 8 | 3/2 | -.124515 |
|  |  | 1 | 1/2 | 6 | 9/2 | .149835 |  |  | 0 | 1/2 | 8 | 5/2 | -.063888 |
|  |  | 1 | 1/2 | 6 | 11/2 | -.297453 |  |  | 0 | 1/2 | 8 | 9/2 | .348363 |
|  |  | 1 | 1/2 | 6 | 15/2 | -.198286 |  |  | 0 | 1/2 | 8 | 11/2 | -.712052 |
| 17/2 | 4 | 0 | 1/2 | 2 | 15/2 | .110148 |  |  | 0 | 1/2 | 8 | 15/2 | -.330031 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.127897 |  |  | 1 | 1/2 | 2 | 15/2 | .485570 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.001976 |  |  | 1 | 1/2 | 4 | 11/2 | -.371729 |
|  |  | 0 | 1/2 | 4 | 15/2 | .352611 |  |  | 1 | 1/2 | 4 | 15/2 | .380347 |
|  |  | 0 | 1/2 | 5 | 9/2 | .193602 |  |  | 1 | 1/2 | 6 | 9/2 | -.116784 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.206432 |  |  | 1 | 1/2 | 6 | 11/2 | .137896 |
|  |  | 0 | 1/2 | 5 | 15/2 | .629405 |  |  | 1 | 1/2 | 6 | 15/2 | -.669867 |
|  |  | 0 | 1/2 | 8 | 3/2 | -.259994 | 19/2 | 3 | 0 | 1/2 | 2 | 15/2 | .324820 |
|  |  | 0 | 1/2 | 8 | 5/2 | -.209641 |  |  | 0 | 1/2 | 4 | 11/2 | -.239569 |
|  |  | 0 | 1/2 | 8 | 9/2 | .327453 |  |  | 0 | 1/2 | 4 | 15/2 | -.165736 |
|  |  | 0 | 1/2 | 8 | 11/2 | .066245 |  |  | 0 | 1/2 | 5 | 9/2 | .507178 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.384402 |  |  | 0 | 1/2 | 5 | 11/2 | -.296098 |
|  |  | 1 | 1/2 | 2 | 15/2 | -.198677 |  |  | 0 | 1/2 | 5 | 15/2 | -.171226 |
|  |  | 1 | 1/2 | 4 | 9/2 | .012637 |  |  | 0 | 1/2 | 8 | 3/2 | -.327969 |
|  |  | 1 | 1/2 | 4 | 11/2 | .468050 |  |  | 0 | 1/2 | 8 | 5/2 | -.427796 |
|  |  | 1 | 1/2 | 4 | 15/2 | .194944 |  |  | 0 | 1/2 | 8 | 9/2 | -.369127 |
|  |  | 1 | 1/2 | 6 | 5/2 | .565930 |  |  | 0 | 1/2 | 8 | 11/2 | .006346 |
|  |  | 1 | 1/2 | 6 | 9/2 | -.604178 |  |  | 0 | 1/2 | 8 | 15/2 | .092416 |
|  |  | 1 | 1/2 | 6 | 11/2 | .134020 |  |  | 1 | 1/2 | 2 | 15/2 | -.571381 |
|  |  | 1 | 1/2 | 6 | 15/2 | -.006558 |  |  | 1 | 1/2 | 4 | 11/2 | .382569 |
| 17/2 | 5 | 0 | 1/2 | 2 | 15/2 | -.289761 |  |  | 1 | 1/2 | 4 | 15/2 | .286186 |
|  |  | 0 | 1/2 | 4 | 9/2 | .302480 |  |  | 1 | 1/2 | 6 | 9/2 | -.224610 |
|  |  | 0 | 1/2 | 4 | 11/2 | .128845 |  |  | 1 | 1/2 | 6 | 11/2 | -.377256 |
|  |  | 0 | 1/2 | 4 | 15/2 | .040827 |  |  | 1 | 1/2 | 6 | 15/2 | -.502485 |
|  |  | 0 | 1/2 | 5 | 9/2 | .290807 | 19/2 | 4 | 0 | 1/2 | 2 | 15/2 | .135401 |
|  |  | 0 | 1/2 | 5 | 11/2 | .573828 |  |  | 0 | 1/2 | 4 | 11/2 | .388080 |
|  |  | 0 | 1/2 | 5 | 15/2 | .194341 |  |  | 0 | 1/2 | 4 | 15/2 | .504541 |
|  |  | 0 | 1/2 | 8 | 3/2 | -.424050 |  |  | 0 | 1/2 | 5 | 9/2 | .143442 |
|  |  | 0 | 1/2 | 8 | 5/2 | -.366846 |  |  | 0 | 1/2 | 5 | 11/2 | .002439 |
|  |  | 0 | 1/2 | 8 | 9/2 | -.196434 |  |  | 0 | 1/2 | 5 | 15/2 | -.358152 |
|  |  | 0 | 1/2 | 8 | 11/2 | -.025869 |  |  | 0 | 1/2 | 8 | 3/2 | -.397424 |
|  |  | 0 | 1/2 | 8 | 15/2 | .031791 |  |  | 0 | 1/2 | 8 | 5/2 | .470546 |
|  |  | 1 | 1/2 | 2 | 15/2 | -.530515 |  |  | 0 | 1/2 | 8 | 9/2 | -.156429 |
|  |  | 1 | 1/2 | 4 | 9/2 | -.679812 |  |  | 0 | 1/2 | 8 | 11/2 | -.066029 |
|  |  | 1 | 1/2 | 4 | 11/2 | -.134999 |  |  | 0 | 1/2 | 8 | 15/2 | .139481 |
|  |  | 1 | 1/2 | 4 | 15/2 | .373329 |  |  | 1 | 1/2 | 2 | 15/2 | .218931 |
|  |  | 1 | 1/2 | 6 | 5/2 | -.104320 |  |  | 1 | 1/2 | 4 | 11/2 | .658658 |
|  |  | 1 | 1/2 | 6 | 9/2 | .135847 |  |  | 1 | 1/2 | 4 | 15/2 | .351218 |
|  |  | 1 | 1/2 | 6 | 11/2 | .255888 |  |  | 1 | 1/2 | 6 | 9/2 | -.255805 |
|  |  | 1 | 1/2 | 6 | 15/2 | -.063205 |  |  | 1 | 1/2 | 6 | 11/2 | .553706 |
| 19/2 | 1 | 0 | 1/2 | 2 | 15/2 | -.538483 |  |  | 1 | 1/2 | 6 | 15/2 | .151189 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.164716 | 21/2 | 1 | 0 | 1/2 | 4 | 15/2 | .384911 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

### $v = 5$, $t = 1/2$

| $J$ | $\alpha$ | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | $D$ | $J$ | $\alpha$ | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | $D$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21/2 | 1 | 0 | 1/2 | 5 | 11/2 | .563221 | 21/2 | 3 | 1 | 1/2 | 4 | 15/2 | .448223 |
| | | 0 | 1/2 | 5 | 15/2 | -.290725 | | | 1 | 1/2 | 6 | 9/2 | .688424 |
| | | 0 | 1/2 | 8 | 5/2 | .231162 | | | 1 | 1/2 | 6 | 11/2 | -.400903 |
| | | 0 | 1/2 | 8 | 9/2 | .497551 | | | 1 | 1/2 | 6 | 15/2 | -.405518 |
| | | 0 | 1/2 | 8 | 11/2 | .328762 | 23/2 | 1 | 0 | 1/2 | 4 | 15/2 | .517790 |
| | | 0 | 1/2 | 8 | 15/2 | .202551 | | | 0 | 1/2 | 5 | 15/2 | -.019417 |
| | | 1 | 1/2 | 4 | 15/2 | -.456196 | | | 0 | 1/2 | 8 | 9/2 | .376851 |
| | | 1 | 1/2 | 6 | 9/2 | -.370294 | | | 0 | 1/2 | 8 | 11/2 | -.767619 |
| | | 1 | 1/2 | 6 | 11/2 | -.512556 | | | 0 | 1/2 | 8 | 15/2 | .016156 |
| | | 1 | 1/2 | 6 | 15/2 | -.626142 | | | 1 | 1/2 | 4 | 15/2 | -.719985 |
| 21/2 | 2 | 0 | 1/2 | 4 | 15/2 | -.237235 | | | 1 | 1/2 | 6 | 11/2 | -.460504 |
| | | 0 | 1/2 | 5 | 11/2 | -.033899 | | | 1 | 1/2 | 6 | 15/2 | .519189 |
| | | 0 | 1/2 | 5 | 15/2 | .334518 | 23/2 | 2 | 0 | 1/2 | 4 | 15/2 | .198961 |
| | | 0 | 1/2 | 8 | 5/2 | -.002135 | | | 0 | 1/2 | 5 | 15/2 | -.572883 |
| | | 0 | 1/2 | 8 | 9/2 | .217825 | | | 0 | 1/2 | 8 | 9/2 | -.619562 |
| | | 0 | 1/2 | 8 | 11/2 | -.224006 | | | 0 | 1/2 | 8 | 11/2 | -.145435 |
| | | 0 | 1/2 | 8 | 15/2 | .856176 | | | 0 | 1/2 | 8 | 15/2 | .476667 |
| | | 1 | 1/2 | 4 | 15/2 | -.369371 | | | 1 | 1/2 | 4 | 15/2 | .612830 |
| | | 1 | 1/2 | 6 | 9/2 | .347692 | | | 1 | 1/2 | 6 | 11/2 | -.772955 |
| | | 1 | 1/2 | 6 | 11/2 | .696889 | | | 1 | 1/2 | 6 | 15/2 | .164255 |
| | | 1 | 1/2 | 6 | 15/2 | -.506972 | 25/2 | 1 | 0 | 1/2 | 5 | 15/2 | .507093 |
| 21/2 | 3 | 0 | 1/2 | 4 | 15/2 | .494767 | | | 0 | 1/2 | 8 | 9/2 | .419790 |
| | | 0 | 1/2 | 5 | 11/2 | .000000 | | | 0 | 1/2 | 8 | 11/2 | .558291 |
| | | 0 | 1/2 | 5 | 15/2 | .589971 | | | 0 | 1/2 | 8 | 15/2 | .504921 |
| | | 0 | 1/2 | 8 | 5/2 | .588693 | | | 1 | 1/2 | 6 | 15/2 | 1.00000 |
| | | 0 | 1/2 | 8 | 9/2 | -.194583 | 27/2 | 1 | 0 | 1/2 | 8 | 11/2 | -.414039 |
| | | 0 | 1/2 | 8 | 11/2 | -.129907 | | | 0 | 1/2 | 8 | 15/2 | .910259 |
| | | 0 | 1/2 | 8 | 15/2 | -.076431 | | | 1 | 1/2 | 6 | 15/2 | -1.00000 |

### $v = 5$, $t = 3/2$

| $J$ | $\alpha$ | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | $D$ | $J$ | $\alpha$ | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | $D$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1/2 | 1 | 0 | 3/2 | 4 | 7/2 | -1.00000 | 5/2 | 2 | 1 | 1/2 | 4 | 11/2 | -.396843 |
| | | 1 | 1/2 | 2 | 3/2 | .175933 | | | 1 | 1/2 | 6 | 9/2 | -.115543 |
| | | 1 | 1/2 | 2 | 5/2 | -.891316 | | | 1 | 1/2 | 6 | 11/2 | .012805 |
| | | 1 | 1/2 | 4 | 9/2 | -.188982 | | | 1 | 1/2 | 6 | 15/2 | -.225254 |
| | | 1 | 1/2 | 6 | 11/2 | .372678 | 7/2 | 1 | 0 | 3/2 | 2 | 7/2 | 1.00000 |
| 3/2 | 1 | 0 | 3/2 | 2 | 7/2 | .715678 | | | 0 | 3/2 | 4 | 7/2 | .000000 |
| | | 0 | 3/2 | 4 | 7/2 | .000000 | | | 0 | 3/2 | 5 | 7/2 | .000000 |
| | | 0 | 3/2 | 5 | 7/2 | -.698430 | | | 1 | 1/2 | 2 | 3/2 | .163478 |
| | | 1 | 1/2 | 2 | 3/2 | .202195 | | | 1 | 1/2 | 2 | 5/2 | -.107583 |
| | | 1 | 1/2 | 2 | 5/2 | -.167997 | | | 1 | 1/2 | 2 | 9/2 | .425565 |
| | | 1 | 1/2 | 4 | 5/2 | .056359 | | | 1 | 1/2 | 2 | 11/2 | -.041031 |
| | | 1 | 1/2 | 4 | 9/2 | -.145111 | | | 1 | 1/2 | 4 | 3/2 | .563465 |
| | | 1 | 1/2 | 4 | 11/2 | -.425718 | | | 1 | 1/2 | 4 | 5/2 | -.074536 |
| | | 1 | 1/2 | 6 | 9/2 | .643373 | | | 1 | 1/2 | 4 | 9/2 | .478591 |
| | | 1 | 1/2 | 6 | 11/2 | -.259582 | | | 1 | 1/2 | 4 | 11/2 | -.172754 |
| | | 1 | 1/2 | 6 | 15/2 | -.494079 | | | 1 | 1/2 | 4 | 15/2 | .000000 |
| 3/2 | 2 | 0 | 3/2 | 2 | 7/2 | -.122806 | | | 1 | 1/2 | 6 | 5/2 | .173472 |
| | | 0 | 3/2 | 4 | 7/2 | -.597935 | | | 1 | 1/2 | 6 | 9/2 | -.295454 |
| | | 0 | 3/2 | 5 | 7/2 | -.125839 | | | 1 | 1/2 | 6 | 11/2 | -.282106 |
| | | 1 | 1/2 | 2 | 3/2 | -.316109 | | | 1 | 1/2 | 6 | 15/2 | .000000 |
| | | 1 | 1/2 | 2 | 5/2 | -.022234 | 7/2 | 2 | 0 | 3/2 | 2 | 7/2 | .000000 |
| | | 1 | 1/2 | 4 | 5/2 | .373645 | | | 0 | 3/2 | 4 | 7/2 | -1.00000 |
| | | 1 | 1/2 | 4 | 9/2 | -.107033 | | | 0 | 3/2 | 5 | 7/2 | .000000 |
| | | 1 | 1/2 | 4 | 11/2 | .436251 | | | 1 | 1/2 | 2 | 3/2 | .176828 |
| | | 1 | 1/2 | 6 | 9/2 | -.136223 | | | 1 | 1/2 | 2 | 5/2 | -.310316 |
| | | 1 | 1/2 | 6 | 11/2 | -.549031 | | | 1 | 1/2 | 2 | 9/2 | .081400 |
| | | 1 | 1/2 | 6 | 15/2 | -.312570 | | | 1 | 1/2 | 2 | 11/2 | .369844 |
| 5/2 | 2 | 0 | 3/2 | 2 | 7/2 | -.262265 | | | 1 | 1/2 | 4 | 3/2 | -.194952 |
| | | 0 | 3/2 | 4 | 7/2 | -.507093 | | | 1 | 1/2 | 4 | 5/2 | .439759 |
| | | 0 | 3/2 | 5 | 7/2 | .821020 | | | 1 | 1/2 | 4 | 9/2 | -.099383 |
| | | 1 | 1/2 | 2 | 3/2 | -.466880 | | | 1 | 1/2 | 4 | 11/2 | .215610 |
| | | 1 | 1/2 | 2 | 5/2 | .071824 | | | 1 | 1/2 | 4 | 15/2 | -.083201 |
| | | 1 | 1/2 | 2 | 9/2 | .437409 | | | 1 | 1/2 | 6 | 5/2 | .227441 |
| | | 1 | 1/2 | 4 | 3/2 | -.121405 | | | 1 | 1/2 | 6 | 9/2 | .126068 |
| | | 1 | 1/2 | 4 | 5/2 | -.532663 | | | 1 | 1/2 | 6 | 11/2 | -.508574 |
| | | 1 | 1/2 | 4 | 9/2 | -.255599 | | | 1 | 1/2 | 6 | 15/2 | -.328746 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

v = 5    t = 3/2

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/2 | 3 | 0 | 3/2 | 2 | 7/2 | .000000 | 11/2 | 1 | 0 | 3/2 | 2 | 7/2 | .947291 |
| | | 0 | 3/2 | 4 | 7/2 | .000000 | | | 0 | 3/2 | 4 | 7/2 | .000000 |
| | | 0 | 3/2 | 5 | 7/2 | 1.00000 | | | 0 | 3/2 | 5 | 7/2 | .000000 |
| | | 1 | 1/2 | 2 | 3/2 | .412599 | | | 0 | 3/2 | 8 | 7/2 | -.320374 |
| | | 1 | 1/2 | 2 | 5/2 | -.077579 | | | 1 | 1/2 | 2 | 9/2 | -.175275 |
| | | 1 | 1/2 | 2 | 9/2 | -.142451 | | | 1 | 1/2 | 2 | 11/2 | -.260037 |
| | | 1 | 1/2 | 2 | 11/2 | .369844 | | | 1 | 1/2 | 2 | 15/2 | .223170 |
| | | 1 | 1/2 | 4 | 3/2 | .215473 | | | 1 | 1/2 | 4 | 3/2 | .046223 |
| | | 1 | 1/2 | 4 | 5/2 | .317604 | | | 1 | 1/2 | 4 | 5/2 | -.044316 |
| | | 1 | 1/2 | 4 | 9/2 | .157243 | | | 1 | 1/2 | 4 | 9/2 | -.491426 |
| | | 1 | 1/2 | 4 | 11/2 | -.263523 | | | 1 | 1/2 | 4 | 11/2 | -.532302 |
| | | 1 | 1/2 | 4 | 15/2 | .303089 | | | 1 | 1/2 | 4 | 15/2 | -.142697 |
| | | 1 | 1/2 | 6 | 5/2 | .030617 | | | 1 | 1/2 | 6 | 3/2 | .372662 |
| | | 1 | 1/2 | 6 | 9/2 | .346688 | | | 1 | 1/2 | 6 | 5/2 | -.140140 |
| | | 1 | 1/2 | 6 | 11/2 | .430332 | | | 1 | 1/2 | 6 | 9/2 | -.519625 |
| | | 1 | 1/2 | 6 | 15/2 | .164373 | | | 1 | 1/2 | 6 | 11/2 | -.143234 |
| 9/2 | 1 | 0 | 3/2 | 2 | 7/2 | .674466 | | | 1 | 1/2 | 6 | 15/2 | -.162559 |
| | | 0 | 3/2 | 4 | 7/2 | .000000 | 11/2 | 2 | 0 | 3/2 | 2 | 7/2 | .216937 |
| | | 0 | 3/2 | 5 | 7/2 | .000000 | | | 0 | 3/2 | 4 | 7/2 | -.735856 |
| | | 0 | 3/2 | 8 | 7/2 | .738306 | | | 0 | 3/2 | 5 | 7/2 | .000000 |
| | | 1 | 1/2 | 2 | 5/2 | -.024310 | | | 0 | 3/2 | 8 | 7/2 | .641447 |
| | | 1 | 1/2 | 2 | 9/2 | -.061413 | | | 1 | 1/2 | 2 | 9/2 | -.382491 |
| | | 1 | 1/2 | 2 | 11/2 | -.284145 | | | 1 | 1/2 | 2 | 11/2 | .130916 |
| | | 1 | 1/2 | 4 | 3/2 | .182815 | | | 1 | 1/2 | 2 | 15/2 | -.500194 |
| | | 1 | 1/2 | 4 | 5/2 | -.083447 | | | 1 | 1/2 | 4 | 3/2 | .132469 |
| | | 1 | 1/2 | 4 | 9/2 | .077034 | | | 1 | 1/2 | 4 | 5/2 | -.441615 |
| | | 1 | 1/2 | 4 | 11/2 | -.024689 | | | 1 | 1/2 | 4 | 9/2 | -.213678 |
| | | 1 | 1/2 | 4 | 15/2 | -.638974 | | | 1 | 1/2 | 4 | 11/2 | -.116960 |
| | | 1 | 1/2 | 6 | 3/2 | .474643 | | | 1 | 1/2 | 4 | 15/2 | .105675 |
| | | 1 | 1/2 | 6 | 5/2 | -.041741 | | | 1 | 1/2 | 6 | 3/2 | -.040639 |
| | | 1 | 1/2 | 6 | 9/2 | .421212 | | | 1 | 1/2 | 6 | 5/2 | .479563 |
| | | 1 | 1/2 | 6 | 11/2 | .130507 | | | 1 | 1/2 | 6 | 9/2 | -.110147 |
| | | 1 | 1/2 | 6 | 15/2 | -.195454 | | | 1 | 1/2 | 6 | 11/2 | .206143 |
| 9/2 | 2 | 0 | 3/2 | 2 | 7/2 | -.122657 | | | 1 | 1/2 | 6 | 15/2 | .130504 |
| | | 0 | 3/2 | 4 | 7/2 | -.986103 | 11/2 | 3 | 0 | 3/2 | 2 | 7/2 | .110849 |
| | | 0 | 3/2 | 5 | 7/2 | .000000 | | | 0 | 3/2 | 4 | 7/2 | .318390 |
| | | 0 | 3/2 | 8 | 7/2 | .112051 | | | 0 | 3/2 | 5 | 7/2 | .882560 |
| | | 1 | 1/2 | 2 | 5/2 | -.494005 | | | 0 | 3/2 | 8 | 7/2 | .327763 |
| | | 1 | 1/2 | 2 | 9/2 | .108025 | | | 1 | 1/2 | 2 | 9/2 | .127619 |
| | | 1 | 1/2 | 2 | 11/2 | -.515089 | | | 1 | 1/2 | 2 | 11/2 | -.112840 |
| | | 1 | 1/2 | 4 | 3/2 | .070871 | | | 1 | 1/2 | 2 | 15/2 | -.021771 |
| | | 1 | 1/2 | 4 | 5/2 | .227076 | | | 1 | 1/2 | 4 | 3/2 | .386195 |
| | | 1 | 1/2 | 4 | 9/2 | .062937 | | | 1 | 1/2 | 4 | 5/2 | .245445 |
| | | 1 | 1/2 | 4 | 11/2 | .179710 | | | 1 | 1/2 | 4 | 9/2 | -.508374 |
| | | 1 | 1/2 | 4 | 15/2 | .070857 | | | 1 | 1/2 | 4 | 11/2 | .156427 |
| | | 1 | 1/2 | 6 | 3/2 | -.016139 | | | 1 | 1/2 | 4 | 15/2 | .502985 |
| | | 1 | 1/2 | 6 | 5/2 | -.502597 | | | 1 | 1/2 | 6 | 3/2 | .213343 |
| | | 1 | 1/2 | 6 | 9/2 | -.178391 | | | 1 | 1/2 | 6 | 5/2 | -.035573 |
| | | 1 | 1/2 | 6 | 11/2 | .125866 | | | 1 | 1/2 | 6 | 9/2 | .380621 |
| | | 1 | 1/2 | 6 | 15/2 | .283865 | | | 1 | 1/2 | 6 | 11/2 | .181427 |
| 9/2 | 3 | 0 | 3/2 | 2 | 7/2 | .452160 | | | 1 | 1/2 | 6 | 15/2 | -.025308 |
| | | 0 | 3/2 | 4 | 7/2 | -.103179 | 13/2 | 1 | 0 | 3/2 | 4 | 7/2 | -1.00000 |
| | | 0 | 3/2 | 5 | 7/2 | .783764 | | | 0 | 3/2 | 5 | 7/2 | .000000 |
| | | 0 | 3/2 | 8 | 7/2 | -.413062 | | | 0 | 3/2 | 8 | 7/2 | .000000 |
| | | 1 | 1/2 | 2 | 5/2 | .185911 | | | 1 | 1/2 | 2 | 9/2 | -.050927 |
| | | 1 | 1/2 | 2 | 9/2 | -.574751 | | | 1 | 1/2 | 2 | 11/2 | .435831 |
| | | 1 | 1/2 | 2 | 11/2 | .025028 | | | 1 | 1/2 | 2 | 15/2 | .175090 |
| | | 1 | 1/2 | 4 | 3/2 | -.185351 | | | 1 | 1/2 | 4 | 5/2 | -.366466 |
| | | 1 | 1/2 | 4 | 5/2 | -.282089 | | | 1 | 1/2 | 4 | 9/2 | -.094448 |
| | | 1 | 1/2 | 4 | 9/2 | .196097 | | | 1 | 1/2 | 4 | 11/2 | .175722 |
| | | 1 | 1/2 | 4 | 11/2 | .501397 | | | 1 | 1/2 | 4 | 15/2 | .268715 |
| | | 1 | 1/2 | 4 | 15/2 | .063414 | | | 1 | 1/2 | 6 | 3/2 | .208167 |
| | | 1 | 1/2 | 6 | 3/2 | .298255 | | | 1 | 1/2 | 6 | 5/2 | -.404701 |
| | | 1 | 1/2 | 6 | 5/2 | -.162953 | | | 1 | 1/2 | 6 | 9/2 | .067002 |
| | | 1 | 1/2 | 6 | 9/2 | -.123530 | | | 1 | 1/2 | 6 | 11/2 | -.534036 |
| | | 1 | 1/2 | 6 | 11/2 | -.210583 | | | 1 | 1/2 | 6 | 15/2 | .183567 |
| | | 1 | 1/2 | 6 | 15/2 | .227056 | 13/2 | 2 | 0 | 3/2 | 4 | 7/2 | .000000 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$v = 5$    $t = 3/2$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13/2 | 2 | 0 | 3/2 | 5 | 7/2 | 1.00000 | 15/2 | 2 | 1 | 1/2 | 2 | 15/2 | .365844 |
| | | 0 | 3/2 | 8 | 7/2 | .000000 | | | 1 | 1/2 | 4 | 9/2 | .254719 |
| | | 1 | 1/2 | 2 | 9/2 | .346237 | | | 1 | 1/2 | 4 | 11/2 | .447816 |
| | | 1 | 1/2 | 2 | 11/2 | .308893 | | | 1 | 1/2 | 4 | 15/2 | -.457995 |
| | | 1 | 1/2 | 2 | 15/2 | -.326824 | | | 1 | 1/2 | 6 | 3/2 | .543203 |
| | | 1 | 1/2 | 4 | 5/2 | .335393 | | | 1 | 1/2 | 6 | 5/2 | .222799 |
| | | 1 | 1/2 | 4 | 9/2 | .070321 | | | 1 | 1/2 | 6 | 9/2 | -.181068 |
| | | 1 | 1/2 | 4 | 11/2 | -.234669 | | | 1 | 1/2 | 6 | 11/2 | -.091276 |
| | | 1 | 1/2 | 4 | 15/2 | -.073402 | | | 1 | 1/2 | 6 | 15/2 | -.064281 |
| | | 1 | 1/2 | 6 | 3/2 | -.326599 | 17/2 | 1 | 0 | 3/2 | 5 | 7/2 | 1.00000 |
| | | 1 | 1/2 | 6 | 5/2 | -.357158 | | | 0 | 3/2 | 8 | 7/2 | .000000 |
| | | 1 | 1/2 | 6 | 9/2 | -.313172 | | | 1 | 1/2 | 2 | 15/2 | .274585 |
| | | 1 | 1/2 | 6 | 11/2 | .000000 | | | 1 | 1/2 | 4 | 9/2 | .173315 |
| | | 1 | 1/2 | 6 | 15/2 | .409505 | | | 1 | 1/2 | 4 | 11/2 | .273448 |
| 13/2 | 3 | 0 | 3/2 | 4 | 7/2 | .000000 | | | 1 | 1/2 | 4 | 15/2 | .397712 |
| | | 0 | 3/2 | 5 | 7/2 | .000000 | | | 1 | 1/2 | 6 | 5/2 | .248734 |
| | | 0 | 3/2 | 8 | 7/2 | -1.00000 | | | 1 | 1/2 | 6 | 9/2 | .582853 |
| | | 1 | 1/2 | 2 | 9/2 | -.287642 | | | 1 | 1/2 | 6 | 11/2 | .446538 |
| | | 1 | 1/2 | 2 | 11/2 | -.256617 | | | 1 | 1/2 | 6 | 15/2 | .246239 |
| | | 1 | 1/2 | 2 | 15/2 | .023373 | 17/2 | 2 | 0 | 3/2 | 5 | 7/2 | .000000 |
| | | 1 | 1/2 | 4 | 5/2 | .000000 | | | 0 | 3/2 | 8 | 7/2 | -1.00000 |
| | | 1 | 1/2 | 4 | 9/2 | -.318656 | | | 1 | 1/2 | 2 | 15/2 | .281718 |
| | | 1 | 1/2 | 4 | 11/2 | .450377 | | | 1 | 1/2 | 4 | 9/2 | -.375393 |
| | | 1 | 1/2 | 4 | 15/2 | -.170292 | | | 1 | 1/2 | 4 | 11/2 | -.112221 |
| | | 1 | 1/2 | 6 | 3/2 | .000000 | | | 1 | 1/2 | 4 | 15/2 | -.448849 |
| | | 1 | 1/2 | 6 | 5/2 | .000000 | | | 1 | 1/2 | 6 | 5/2 | .000000 |
| | | 1 | 1/2 | 6 | 9/2 | -.055652 | | | 1 | 1/2 | 6 | 9/2 | -.239198 |
| | | 1 | 1/2 | 6 | 11/2 | .176496 | | | 1 | 1/2 | 6 | 11/2 | .446685 |
| | | 1 | 1/2 | 6 | 15/2 | .695151 | | | 1 | 1/2 | 6 | 15/2 | .555800 |
| 15/2 | 1 | 0 | 3/2 | 4 | 7/2 | -.959285 | 19/2 | 1 | 0 | 3/2 | 8 | 7/2 | -1.00000 |
| | | 0 | 3/2 | 5 | 7/2 | .000000 | | | 1 | 1/2 | 2 | 15/2 | .552771 |
| | | 0 | 3/2 | 8 | 7/2 | -.282440 | | | 1 | 1/2 | 4 | 11/2 | .500000 |
| | | 1 | 1/2 | 2 | 11/2 | .260417 | | | 1 | 1/2 | 4 | 15/2 | -.150756 |
| | | 1 | 1/2 | 2 | 15/2 | -.393019 | | | 1 | 1/2 | 6 | 9/2 | .392232 |
| | | 1 | 1/2 | 4 | 9/2 | .050052 | | | 1 | 1/2 | 6 | 11/2 | -.500000 |
| | | 1 | 1/2 | 4 | 11/2 | .396189 | | | 1 | 1/2 | 6 | 15/2 | -.133683 |
| | | 1 | 1/2 | 4 | 15/2 | -.041383 | 21/2 | 1 | 0 | 3/2 | 8 | 7/2 | -1.00000 |
| | | 1 | 1/2 | 6 | 3/2 | .106739 | | | 1 | 1/2 | 4 | 15/2 | .674200 |
| | | 1 | 1/2 | 6 | 5/2 | -.573306 | | | 1 | 1/2 | 6 | 9/2 | -.517750 |
| | | 1 | 1/2 | 6 | 9/2 | -.086941 | | | 1 | 1/2 | 6 | 11/2 | .301511 |
| | | 1 | 1/2 | 6 | 11/2 | .424743 | | | 1 | 1/2 | 6 | 15/2 | -.431834 |
| | | 1 | 1/2 | 6 | 15/2 | -.297485 | 23/2 | 1 | 0 | 3/2 | 8 | 7/2 | -1.00000 |
| 15/2 | 2 | 0 | 3/2 | 4 | 7/2 | -.117635 | | | 1 | 1/2 | 4 | 15/2 | .325669 |
| | | 0 | 3/2 | 5 | 7/2 | .909137 | | | 1 | 1/2 | 6 | 11/2 | .436436 |
| | | 0 | 3/2 | 8 | 7/2 | .399539 | | | 1 | 1/2 | 6 | 15/2 | .838727 |
| | | 1 | 1/2 | 2 | 11/2 | .031934 | | | | | | | |

$v = 6$    $t = 0$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1 | 0 | 0 | 2 | 2 | -.171129 | 1 | 2 | 1/2 | 1/2 | 3/2 | 5/2 | .238684 |
| | | 0 | 0 | 4 | 4 | -.876648 | | | 1/2 | 1/2 | 5/2 | 5/2 | -.428199 |
| | | 0 | 0 | 4 | 5 | .020742 | | | 1/2 | 1/2 | 9/2 | 9/2 | .284446 |
| | | 0 | 0 | 5 | 5 | .426280 | | | 1/2 | 1/2 | 9/2 | 11/2 | .071843 |
| | | 0 | 0 | 8 | 8 | .141630 | | | 1/2 | 1/2 | 11/2 | 11/2 | -.177887 |
| | | 1/2 | 1/2 | 3/2 | 3/2 | .303920 | | | 1/2 | 1/2 | 15/2 | 15/2 | .167413 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | -.558653 | 1 | 3 | 0 | 0 | 2 | 2 | -.526508 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | -.503290 | | | 0 | 0 | 4 | 4 | -.055053 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .205515 | | | 0 | 0 | 4 | 5 | .614876 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.253483 | | | 0 | 0 | 5 | 5 | -.469979 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | -.417938 | | | 0 | 0 | 8 | 8 | .347571 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .247136 | | | 1/2 | 1/2 | 3/2 | 3/2 | -.100022 |
| 1 | 2 | 0 | 0 | 2 | 2 | .706257 | | | 1/2 | 1/2 | 3/2 | 5/2 | -.214517 |
| | | 0 | 0 | 4 | 4 | -.349953 | | | 1/2 | 1/2 | 5/2 | 5/2 | .219639 |
| | | 0 | 0 | 4 | 5 | -.007114 | | | 1/2 | 1/2 | 9/2 | 9/2 | -.413855 |
| | | 0 | 0 | 5 | 5 | -.536157 | | | 1/2 | 1/2 | 9/2 | 11/2 | .630799 |
| | | 0 | 0 | 8 | 8 | .302025 | | | 1/2 | 1/2 | 11/2 | 11/2 | -.389107 |
| | | 1/2 | 1/2 | 3/2 | 3/2 | -.783539 | | | 1/2 | 1/2 | 15/2 | 15/2 | .418508 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha:J_\lambda J_\mu}$

$v = 6 \quad t = 0$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\rho$ | $J_\mu$ | D | | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4 | 0 | 0 | 2 | 2 | -.421544 | | 3 | 2 | 0 | 0 | 5 | 5 | -.390857 |
| | | 0 | 0 | 4 | 4 | -.062848 | | | | 0 | 0 | 5 | 8 | -.502543 |
| | | 0 | 0 | 4 | 5 | -.788319 | | | | 0 | 0 | 8 | 8 | -.512580 |
| | | 0 | 0 | 5 | 5 | -.350522 | | | | 1/2 | 1/2 | 3/2 | 3/2 | -.168382 |
| | | 0 | 0 | 8 | 8 | .272101 | | | | 1/2 | 1/2 | 3/2 | 5/2 | .295394 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | .240438 | | | | 1/2 | 1/2 | 3/2 | 9/2 | -.098953 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | .299864 | | | | 1/2 | 1/2 | 5/2 | 5/2 | -.121158 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | -.663640 | | | | 1/2 | 1/2 | 5/2 | 9/2 | -.043754 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | -.507987 | | | | 1/2 | 1/2 | 5/2 | 11/2 | .044974 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .138735 | | | | 1/2 | 1/2 | 9/2 | 9/2 | -.177676 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .331771 | | | | 1/2 | 1/2 | 9/2 | 11/2 | -.060066 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .156471 | | | | 1/2 | 1/2 | 9/2 | 15/2 | .636042 |
| 2 | 1 | 0 | 0 | 2 | 2 | .000000 | | | | 1/2 | 1/2 | 11/2 | 11/2 | .189365 |
| | | 0 | 0 | 2 | 4 | .328362 | | | | 1/2 | 1/2 | 11/2 | 15/2 | -.282154 |
| | | 0 | 0 | 4 | 4 | .000000 | | | | 1/2 | 1/2 | 15/2 | 15/2 | -.548439 |
| | | 0 | 0 | 4 | 5 | .944552 | | 3 | 3 | 0 | 0 | 2 | 2 | -.062662 |
| | | 0 | 0 | 5 | 5 | .000000 | | | | 0 | 0 | 2 | 4 | -.637680 |
| | | 0 | 0 | 8 | 8 | .000000 | | | | 0 | 0 | 2 | 5 | .194671 |
| | | 1/2 | 1/2 | 3/2 | 3/2 | .000000 | | | | 0 | 0 | 4 | 4 | .176611 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | .637201 | | | | 0 | 0 | 4 | 5 | .158715 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | .000000 | | | | 0 | 0 | 5 | 5 | .469640 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | -.713728 | | | | 0 | 0 | 5 | 8 | -.481427 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 | | | | 0 | 0 | 8 | 8 | -.206945 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.047416 | | | | 1/2 | 1/2 | 3/2 | 3/2 | .099245 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 | | | | 1/2 | 1/2 | 3/2 | 5/2 | .242826 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .286912 | | | | 1/2 | 1/2 | 3/2 | 9/2 | -.316504 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 | | | | 1/2 | 1/2 | 5/2 | 5/2 | -.089647 |
| 2 | 2 | 0 | 0 | 2 | 2 | .000000 | | | | 1/2 | 1/2 | 5/2 | 9/2 | .218209 |
| | | 0 | 0 | 2 | 4 | .944552 | | | | 1/2 | 1/2 | 5/2 | 11/2 | .395453 |
| | | 0 | 0 | 4 | 4 | .000000 | | | | 1/2 | 1/2 | 9/2 | 9/2 | -.126604 |
| | | 0 | 0 | 4 | 5 | -.328362 | | | | 1/2 | 1/2 | 9/2 | 11/2 | -.535919 |
| | | 0 | 0 | 5 | 5 | .000000 | | | | 1/2 | 1/2 | 9/2 | 15/2 | .100098 |
| | | 0 | 0 | 8 | 8 | .000000 | | | | 1/2 | 1/2 | 11/2 | 11/2 | -.347370 |
| | | 1/2 | 1/2 | 3/2 | 3/2 | .000000 | | | | 1/2 | 1/2 | 11/2 | 15/2 | .424491 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | .538891 | | | | 1/2 | 1/2 | 15/2 | 15/2 | .069719 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | .000000 | | 3 | 4 | 0 | 0 | 2 | 2 | .738944 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | .317776 | | | | 0 | 0 | 2 | 4 | .427036 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 | | | | 0 | 0 | 2 | 5 | .086528 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .725671 | | | | 0 | 0 | 4 | 4 | -.095494 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 | | | | 0 | 0 | 4 | 5 | .311270 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.286386 | | | | 0 | 0 | 5 | 5 | .247439 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 | | | | 0 | 0 | 5 | 8 | -.225748 |
| 3 | 1 | 0 | 0 | 2 | 2 | -.303968 | | | | 0 | 0 | 8 | 8 | -.214287 |
| | | 0 | 0 | 2 | 4 | .066541 | | | | 1/2 | 1/2 | 3/2 | 3/2 | .114421 |
| | | 0 | 0 | 2 | 5 | -.008522 | | | | 1/2 | 1/2 | 3/2 | 5/2 | -.496510 |
| | | 0 | 0 | 4 | 4 | .080544 | | | | 1/2 | 1/2 | 3/2 | 9/2 | .459286 |
| | | 0 | 0 | 4 | 5 | .499195 | | | | 1/2 | 1/2 | 5/2 | 5/2 | .099947 |
| | | 0 | 0 | 5 | 5 | -.134033 | | | | 1/2 | 1/2 | 5/2 | 9/2 | -.152623 |
| | | 0 | 0 | 5 | 8 | .322872 | | | | 1/2 | 1/2 | 5/2 | 11/2 | .062360 |
| | | 0 | 0 | 8 | 8 | -.724713 | | | | 1/2 | 1/2 | 9/2 | 9/2 | -.600105 |
| | | 1/2 | 1/2 | 3/2 | 3/2 | -.121761 | | | | 1/2 | 1/2 | 9/2 | 11/2 | -.100881 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | -.275019 | | | | 1/2 | 1/2 | 9/2 | 15/2 | .267464 |
| | | 1/2 | 1/2 | 3/2 | 9/2 | -.209523 | | | | 1/2 | 1/2 | 11/2 | 11/2 | -.076054 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | .085603 | | | | 1/2 | 1/2 | 11/2 | 15/2 | .211086 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | -.245895 | | | | 1/2 | 1/2 | 15/2 | 15/2 | -.009419 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .187812 | | 3 | 5 | 0 | 0 | 2 | 2 | -.086969 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | -.032333 | | | | 0 | 0 | 2 | 4 | .331439 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .022521 | | | | 0 | 0 | 2 | 5 | .430783 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | -.301359 | | | | 0 | 0 | 4 | 4 | .820400 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | -.606714 | | | | 0 | 0 | 4 | 5 | -.052728 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.336126 | | | | 0 | 0 | 5 | 5 | -.074527 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | -.434879 | | | | 0 | 0 | 5 | 8 | -.082847 |
| 3 | 2 | 0 | 0 | 2 | 2 | .042936 | | | | 0 | 0 | 8 | 8 | .093576 |
| | | 0 | 0 | 2 | 4 | .064082 | | | | 1/2 | 1/2 | 3/2 | 3/2 | .368181 |
| | | 0 | 0 | 2 | 5 | -.237757 | | | | 1/2 | 1/2 | 3/2 | 5/2 | -.000249 |
| | | 0 | 0 | 4 | 4 | .042465 | | | | 1/2 | 1/2 | 3/2 | 9/2 | -.000200 |
| | | 0 | 0 | 4 | 5 | -.517360 | | | | 1/2 | 1/2 | 5/2 | 5/2 | -.717767 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

V = 6, t = 0

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 3 | 5 | 1/2 | 1/2 | 5/2 | 9/2 | -.064150 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .380894 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | -.162370 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .270581 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | -.060916 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .032506 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.254319 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .176165 |
| 3 | 6 | 0 | 0 | 2 | 2 | -.466654 |
| | | 0 | 0 | 2 | 4 | .430524 |
| | | 0 | 0 | 2 | 5 | .431581 |
| | | 0 | 0 | 4 | 4 | -.435219 |
| | | 0 | 0 | 4 | 5 | -.222166 |
| | | 0 | 0 | 5 | 5 | .363222 |
| | | 0 | 0 | 5 | 8 | -.165396 |
| | | 0 | 0 | 8 | 8 | -.112080 |
| | | 1/2 | 1/2 | 3/2 | 3/2 | .630903 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | -.171002 |
| | | 1/2 | 1/2 | 3/2 | 9/2 | -.558535 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | .113362 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | -.146351 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | -.383021 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | -.155385 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.083197 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | -.005022 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .186274 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .011436 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | -.117745 |
| 3 | 7 | 0 | 0 | 2 | 2 | -.056980 |
| | | 0 | 0 | 2 | 4 | .177385 |
| | | 0 | 0 | 2 | 5 | -.564258 |
| | | 0 | 0 | 4 | 4 | .296737 |
| | | 0 | 0 | 4 | 5 | -.283468 |
| | | 0 | 0 | 5 | 5 | .637341 |
| | | 0 | 0 | 5 | 8 | .236452 |
| | | 0 | 0 | 8 | 8 | -.127987 |
| | | 1/2 | 1/2 | 3/2 | 3/2 | -.280578 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | -.571076 |
| | | 1/2 | 1/2 | 3/2 | 9/2 | -.188296 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | -.324864 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | .578149 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | -.166149 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .042464 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.230672 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .034579 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .110598 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.154318 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | -.006265 |
| 4 | 1 | 0 | 0 | 2 | 2 | .000000 |
| | | 0 | 0 | 2 | 4 | .257305 |
| | | 0 | 0 | 2 | 5 | .606163 |
| | | 0 | 0 | 4 | 4 | .000000 |
| | | 0 | 0 | 4 | 5 | .138517 |
| | | 0 | 0 | 4 | 8 | -.445514 |
| | | 0 | 0 | 5 | 5 | .000000 |
| | | 0 | 0 | 5 | 8 | .590500 |
| | | 0 | 0 | 8 | 8 | .000000 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | -.100062 |
| | | 1/2 | 1/2 | 3/2 | 9/2 | -.024050 |
| | | 1/2 | 1/2 | 3/2 | 11/2 | -.130967 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | .312459 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .318694 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.563946 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | -.010529 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 4 | 1 | 1/2 | 1/2 | 11/2 | 15/2 | -.674473 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 4 | 2 | 0 | 0 | 2 | 2 | .000000 |
| | | 0 | 0 | 2 | 4 | .420728 |
| | | 0 | 0 | 2 | 5 | -.666617 |
| | | 0 | 0 | 4 | 4 | .000000 |
| | | 0 | 0 | 4 | 5 | -.322692 |
| | | 0 | 0 | 4 | 8 | -.476928 |
| | | 0 | 0 | 5 | 5 | .000000 |
| | | 0 | 0 | 5 | 8 | .216838 |
| | | 0 | 0 | 8 | 8 | .000000 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | .159331 |
| | | 1/2 | 1/2 | 3/2 | 9/2 | .719038 |
| | | 1/2 | 1/2 | 3/2 | 11/2 | -.088916 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | .028210 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .131757 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .503278 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .183249 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.380352 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 4 | 3 | 0 | 0 | 2 | 2 | .000000 |
| | | 0 | 0 | 2 | 4 | .550850 |
| | | 0 | 0 | 2 | 5 | -.040074 |
| | | 0 | 0 | 4 | 4 | .000000 |
| | | 0 | 0 | 4 | 5 | .684987 |
| | | 0 | 0 | 4 | 8 | -.129373 |
| | | 0 | 0 | 5 | 5 | .000000 |
| | | 0 | 0 | 5 | 8 | -.457180 |
| | | 0 | 0 | 8 | 8 | .000000 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | .598090 |
| | | 1/2 | 1/2 | 3/2 | 9/2 | -.061013 |
| | | 1/2 | 1/2 | 3/2 | 11/2 | -.410897 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | .188973 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .345073 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.148705 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .402332 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .361882 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 4 | 4 | 0 | 0 | 2 | 2 | .000000 |
| | | 0 | 0 | 2 | 4 | .153834 |
| | | 0 | 0 | 2 | 5 | .412956 |
| | | 0 | 0 | 4 | 4 | .000000 |
| | | 0 | 0 | 4 | 5 | -.568992 |
| | | 0 | 0 | 4 | 8 | -.333402 |
| | | 0 | 0 | 5 | 5 | .000000 |
| | | 0 | 0 | 5 | 8 | -.609011 |
| | | 0 | 0 | 8 | 8 | .000000 |
| | | 1/2 | 1/2 | 3/2 | 5/2 | -.513192 |
| | | 1/2 | 1/2 | 3/2 | 9/2 | -.318786 |
| | | 1/2 | 1/2 | 3/2 | 11/2 | -.654587 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | -.143345 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .173721 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .355139 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .157789 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.069121 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 4 | 5 | 0 | 0 | 2 | 2 | .000000 |
| | | 0 | 0 | 2 | 4 | -.655501 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$v = 6$    $t = 0$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 4 | 5 | 0 | 0 | 2 | 5 | -.126687 |
|   |   | 0 | 0 | 4 | 4 | .000000 |
|   |   | 0 | 0 | 4 | 5 | .289352 |
|   |   | 0 | 0 | 4 | 8 | -.667954 |
|   |   | 0 | 0 | 5 | 5 | .000000 |
|   |   | 0 | 0 | 5 | 8 | -.156149 |
|   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .093288 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.067238 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .256775 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.740636 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .603153 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.055506 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.011077 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.072834 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 5 | 1 | 0 | 0 | 2 | 4 | -.369347 |
|   |   | 0 | 0 | 2 | 5 | -.119851 |
|   |   | 0 | 0 | 4 | 4 | .234561 |
|   |   | 0 | 0 | 4 | 5 | .395986 |
|   |   | 0 | 0 | 4 | 8 | .041137 |
|   |   | 0 | 0 | 5 | 5 | -.751556 |
|   |   | 0 | 0 | 5 | 8 | -.259395 |
|   |   | 0 | 0 | 8 | 8 | -.059844 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | .408493 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.555815 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .099808 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .242606 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .449468 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .231317 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .183658 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .153043 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .064334 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .154552 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.134877 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .310622 |
| 5 | 2 | 0 | 0 | 2 | 4 | .249021 |
|   |   | 0 | 0 | 2 | 5 | -.323692 |
|   |   | 0 | 0 | 4 | 4 | -.022283 |
|   |   | 0 | 0 | 4 | 5 | .079456 |
|   |   | 0 | 0 | 4 | 8 | -.053177 |
|   |   | 0 | 0 | 5 | 5 | .148852 |
|   |   | 0 | 0 | 5 | 8 | -.353870 |
|   |   | 0 | 0 | 8 | 8 | -.822310 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.460027 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.127463 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.150932 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.126460 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .006877 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .149168 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.168713 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.280776 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.418347 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .275691 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.438928 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .400102 |
| 5 | 3 | 0 | 0 | 2 | 4 | .208662 |
|   |   | 0 | 0 | 2 | 5 | .030174 |
|   |   | 0 | 0 | 4 | 4 | .717418 |
|   |   | 0 | 0 | 4 | 5 | -.079171 |
|   |   | 0 | 0 | 4 | 8 | .649305 |
|   |   | 0 | 0 | 5 | 5 | .091031 |
|   |   | 0 | 0 | 5 | 8 | .062558 |
|   |   | 0 | 0 | 8 | 8 | -.028210 |

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 5 | 3 | 1/2 | 1/2 | 3/2 | 9/2 | -.158766 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .344981 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .561860 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .138460 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .269863 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .588253 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.004744 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.211159 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.089952 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.180369 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .128094 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.020311 |
| 5 | 4 | 0 | 0 | 2 | 4 | -.333713 |
|   |   | 0 | 0 | 2 | 5 | .233627 |
|   |   | 0 | 0 | 4 | 4 | .350773 |
|   |   | 0 | 0 | 4 | 5 | .575747 |
|   |   | 0 | 0 | 4 | 8 | -.292795 |
|   |   | 0 | 0 | 5 | 5 | .540031 |
|   |   | 0 | 0 | 5 | 8 | -.045282 |
|   |   | 0 | 0 | 8 | 8 | -.010721 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.101084 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .135145 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.161839 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .394647 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .362882 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.279198 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.445367 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .306748 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.257593 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.420293 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .060225 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .202167 |
| 5 | 5 | 0 | 0 | 2 | 4 | .421231 |
|   |   | 0 | 0 | 2 | 5 | -.679820 |
|   |   | 0 | 0 | 4 | 4 | .215733 |
|   |   | 0 | 0 | 4 | 5 | .239769 |
|   |   | 0 | 0 | 4 | 8 | -.308212 |
|   |   | 0 | 0 | 5 | 5 | .008635 |
|   |   | 0 | 0 | 5 | 8 | .112586 |
|   |   | 0 | 0 | 8 | 8 | .385531 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.521995 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .062396 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.092880 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.110197 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .508290 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.236164 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .573748 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .126350 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .089472 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .100706 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .151428 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.049968 |
| 5 | 6 | 0 | 0 | 2 | 4 | .631675 |
|   |   | 0 | 0 | 2 | 5 | .514710 |
|   |   | 0 | 0 | 4 | 4 | -.074004 |
|   |   | 0 | 0 | 4 | 5 | .274908 |
|   |   | 0 | 0 | 4 | 8 | -.041624 |
|   |   | 0 | 0 | 5 | 5 | -.133679 |
|   |   | 0 | 0 | 5 | 8 | -.447203 |
|   |   | 0 | 0 | 8 | 8 | .188192 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | .139896 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .270920 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.206654 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.472860 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .323804 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .182343 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.422544 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

$$V = 6 \quad t = 0$$

| J | $\alpha$ | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | | J | $\alpha$ | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 6 | 1/2 | 1/2 | 9/2 | 11/2 | .128284 | | 6 | 3 | 0 | 0 | 2 | 4 | .112511 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .284457 | | | | 0 | 0 | 2 | 5 | -.599362 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .347241 | | | | 0 | 0 | 2 | 8 | -.766696 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .257872 | | | | 0 | 0 | 4 | 4 | .000000 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .199102 | | | | 0 | 0 | 4 | 5 | .068728 |
| 5 | 7 | 0 | 0 | 2 | 4 | -.201329 | | | | 0 | 0 | 4 | 8 | .009062 |
| | | 0 | 0 | 2 | 5 | -.085888 | | | | 0 | 0 | 5 | 5 | .000000 |
| | | 0 | 0 | 4 | 4 | .281773 | | | | 0 | 0 | 5 | 8 | .188356 |
| | | 0 | 0 | 4 | 5 | -.537720 | | | | 0 | 0 | 8 | 8 | .000000 |
| | | 0 | 0 | 4 | 8 | -.249434 | | | | 1/2 | 1/2 | 3/2 | 9/2 | .028428 |
| | | 0 | 0 | 5 | 5 | .116231 | | | | 1/2 | 1/2 | 3/2 | 11/2 | .561528 |
| | | 0 | 0 | 5 | 8 | -.671245 | | | | 1/2 | 1/2 | 3/2 | 15/2 | .586935 |
| | | 0 | 0 | 8 | 8 | .239279 | | | | 1/2 | 1/2 | 5/2 | 9/2 | -.086659 |
| | | 1/2 | 1/2 | 3/2 | 9/2 | -.131068 | | | | 1/2 | 1/2 | 5/2 | 11/2 | -.021265 |
| | | 1/2 | 1/2 | 3/2 | 11/2 | -.316017 | | | | 1/2 | 1/2 | 5/2 | 15/2 | -.166730 |
| | | 1/2 | 1/2 | 5/2 | 5/2 | .541607 | | | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | -.498526 | | | | 1/2 | 1/2 | 9/2 | 11/2 | -.163472 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | -.109734 | | | | 1/2 | 1/2 | 9/2 | 15/2 | -.526205 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | -.122718 | | | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | -.113517 | | | | 1/2 | 1/2 | 11/2 | 15/2 | .003190 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .467524 | | | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | -.239791 | | 6 | 4 | 0 | 0 | 2 | 4 | .378397 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | -.110260 | | | | 0 | 0 | 2 | 5 | -.354237 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .098397 | | | | 0 | 0 | 2 | 8 | .308948 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .056424 | | | | 0 | 0 | 4 | 4 | .000000 |
| 6 | 1 | 0 | 0 | 2 | 4 | -.467584 | | | | 0 | 0 | 4 | 5 | .402651 |
| | | 0 | 0 | 2 | 5 | -.001002 | | | | 0 | 0 | 4 | 8 | -.655135 |
| | | 0 | 0 | 2 | 8 | .135236 | | | | 0 | 0 | 5 | 5 | .000000 |
| | | 0 | 0 | 4 | 4 | .000000 | | | | 0 | 0 | 5 | 8 | -.211075 |
| | | 0 | 0 | 4 | 5 | .171603 | | | | 0 | 0 | 8 | 8 | .000000 |
| | | 0 | 0 | 4 | 8 | -.351881 | | | | 1/2 | 1/2 | 3/2 | 9/2 | .536427 |
| | | 0 | 0 | 5 | 5 | .000000 | | | | 1/2 | 1/2 | 3/2 | 11/2 | .006204 |
| | | 0 | 0 | 5 | 8 | .780901 | | | | 1/2 | 1/2 | 3/2 | 15/2 | -.031131 |
| | | 0 | 0 | 8 | 8 | .000000 | | | | 1/2 | 1/2 | 5/2 | 9/2 | -.559415 |
| | | 1/2 | 1/2 | 3/2 | 9/2 | .267335 | | | | 1/2 | 1/2 | 5/2 | 11/2 | -.389041 |
| | | 1/2 | 1/2 | 3/2 | 11/2 | .466044 | | | | 1/2 | 1/2 | 5/2 | 15/2 | .137294 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | -.019873 | | | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | .246478 | | | | 1/2 | 1/2 | 9/2 | 11/2 | .040163 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .293488 | | | | 1/2 | 1/2 | 9/2 | 15/2 | .049877 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | -.431810 | | | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 | | | | 1/2 | 1/2 | 11/2 | 15/2 | -.473276 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .211443 | | | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .506612 | | 6 | 5 | 0 | 0 | 2 | 4 | -.151861 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 | | | | 0 | 0 | 2 | 5 | -.487376 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.276098 | | | | 0 | 0 | 2 | 8 | .275303 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 | | | | 0 | 0 | 4 | 4 | .000000 |
| 6 | 2 | 0 | 0 | 2 | 4 | .739443 | | | | 0 | 0 | 4 | 5 | -.795604 |
| | | 0 | 0 | 2 | 5 | .308177 | | | | 0 | 0 | 4 | 8 | -.170114 |
| | | 0 | 0 | 2 | 8 | -.049148 | | | | 0 | 0 | 5 | 5 | .000000 |
| | | 0 | 0 | 4 | 4 | .000000 | | | | 0 | 0 | 5 | 8 | -.041054 |
| | | 0 | 0 | 4 | 5 | -.344288 | | | | 0 | 0 | 8 | 8 | .000000 |
| | | 0 | 0 | 4 | 8 | -.125934 | | | | 1/2 | 1/2 | 3/2 | 9/2 | .275945 |
| | | 0 | 0 | 5 | 5 | .000000 | | | | 1/2 | 1/2 | 3/2 | 11/2 | -.345532 |
| | | 0 | 0 | 5 | 8 | .470577 | | | | 1/2 | 1/2 | 3/2 | 15/2 | -.005671 |
| | | 0 | 0 | 8 | 8 | .000000 | | | | 1/2 | 1/2 | 5/2 | 9/2 | -.406472 |
| | | 1/2 | 1/2 | 3/2 | 9/2 | -.335532 | | | | 1/2 | 1/2 | 5/2 | 11/2 | .659832 |
| | | 1/2 | 1/2 | 3/2 | 11/2 | -.170385 | | | | 1/2 | 1/2 | 5/2 | 15/2 | -.314955 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | .227652 | | | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | -.340830 | | | | 1/2 | 1/2 | 9/2 | 11/2 | .132326 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | -.028314 | | | | 1/2 | 1/2 | 9/2 | 15/2 | -.260340 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | -.369648 | | | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 | | | | 1/2 | 1/2 | 11/2 | 15/2 | .139095 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.609467 | | | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .417189 | | 6 | 6 | 0 | 0 | 2 | 4 | .235976 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 | | | | 0 | 0 | 2 | 5 | -.427518 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.086360 | | | | 0 | 0 | 2 | 8 | .469288 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 | | | | 0 | 0 | 4 | 4 | .000000 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha:J_\lambda J_\mu}$

$v = 6 \quad t = 0$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|-----|-----|-----|-----|-----|
| 6 | 6 | 0 | 0 | 4 | 5 | .228431 |
|   |   | 0 | 0 | 4 | 8 | .634112 |
|   |   | 0 | 0 | 5 | 5 | .000000 |
|   |   | 0 | 0 | 5 | 8 | .295016 |
|   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | .561608 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.132448 |
|   |   | 1/2 | 1/2 | 3/2 | 15/2 | .429246 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .186214 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .021600 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .276130 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.229165 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .322757 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .463382 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 7 | 1 | 0 | 0 | 2 | 5 | -.408057 |
|   |   | 0 | 0 | 2 | 8 | .269640 |
|   |   | 0 | 0 | 4 | 4 | -.610789 |
|   |   | 0 | 0 | 4 | 5 | -.389347 |
|   |   | 0 | 0 | 4 | 8 | .274615 |
|   |   | 0 | 0 | 5 | 5 | -.081541 |
|   |   | 0 | 0 | 5 | 8 | -.278052 |
|   |   | 0 | 0 | 8 | 8 | -.277065 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .424805 |
|   |   | 1/2 | 1/2 | 3/2 | 15/2 | -.052704 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .147911 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .614533 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .001959 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.553079 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.038671 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.035677 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .150898 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .119220 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .267549 |
| 7 | 2 | 0 | 0 | 2 | 5 | .312878 |
|   |   | 0 | 0 | 2 | 8 | .682574 |
|   |   | 0 | 0 | 4 | 4 | -.066337 |
|   |   | 0 | 0 | 4 | 5 | .530588 |
|   |   | 0 | 0 | 4 | 8 | .047557 |
|   |   | 0 | 0 | 5 | 5 | .237353 |
|   |   | 0 | 0 | 5 | 8 | -.255946 |
|   |   | 0 | 0 | 8 | 8 | -.161769 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.027024 |
|   |   | 1/2 | 1/2 | 3/2 | 15/2 | .558533 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.471140 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.002105 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .183205 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .023070 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .356274 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .189319 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .395976 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.032823 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .332604 |
| 7 | 3 | 0 | 0 | 2 | 5 | .155714 |
|   |   | 0 | 0 | 2 | 8 | .207282 |
|   |   | 0 | 0 | 4 | 4 | .351633 |
|   |   | 0 | 0 | 4 | 5 | -.164129 |
|   |   | 0 | 0 | 4 | 8 | .281498 |
|   |   | 0 | 0 | 5 | 5 | -.350758 |
|   |   | 0 | 0 | 5 | 8 | .434205 |
|   |   | 0 | 0 | 8 | 8 | -.625617 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.033935 |
|   |   | 1/2 | 1/2 | 3/2 | 15/2 | .375300 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .465562 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .029773 |
| 7 | 3 | 1/2 | 1/2 | 5/2 | 15/2 | -.396359 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .151729 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.326005 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .227342 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .148480 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.476588 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .230425 |
| 7 | 4 | 0 | 0 | 2 | 5 | -.391780 |
|   |   | 0 | 0 | 2 | 8 | -.114507 |
|   |   | 0 | 0 | 4 | 4 | .024886 |
|   |   | 0 | 0 | 4 | 5 | .149310 |
|   |   | 0 | 0 | 4 | 8 | .196626 |
|   |   | 0 | 0 | 5 | 5 | .753480 |
|   |   | 0 | 0 | 5 | 8 | .393885 |
|   |   | 0 | 0 | 8 | 8 | -.221235 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .331731 |
|   |   | 1/2 | 1/2 | 3/2 | 15/2 | .201115 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.418468 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .085042 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.389554 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .193706 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.335584 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.496601 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .191460 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .031633 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.284603 |
| 7 | 5 | 0 | 0 | 2 | 5 | .169198 |
|   |   | 0 | 0 | 2 | 8 | -.392946 |
|   |   | 0 | 0 | 4 | 4 | -.234104 |
|   |   | 0 | 0 | 4 | 5 | .420364 |
|   |   | 0 | 0 | 4 | 8 | .731968 |
|   |   | 0 | 0 | 5 | 5 | -.199413 |
|   |   | 0 | 0 | 5 | 8 | -.019602 |
|   |   | 0 | 0 | 8 | 8 | .097608 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.637443 |
|   |   | 1/2 | 1/2 | 3/2 | 15/2 | -.052886 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .146049 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .453345 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .028773 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .208782 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.092770 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.124781 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .436227 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .307724 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.102153 |
| 7 | 6 | 0 | 0 | 2 | 5 | .630401 |
|   |   | 0 | 0 | 2 | 8 | -.352625 |
|   |   | 0 | 0 | 4 | 4 | -.395292 |
|   |   | 0 | 0 | 4 | 5 | -.201726 |
|   |   | 0 | 0 | 4 | 8 | -.217720 |
|   |   | 0 | 0 | 5 | 5 | .277562 |
|   |   | 0 | 0 | 5 | 8 | -.018522 |
|   |   | 0 | 0 | 8 | 8 | -.395620 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .122701 |
|   |   | 1/2 | 1/2 | 3/2 | 15/2 | -.079923 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .045166 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .408613 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .221441 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .544597 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .281818 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.349512 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.287148 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.337682 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .256646 |
| 7 | 7 | 0 | 0 | 2 | 5 | .181319 |
|   |   | 0 | 0 | 2 | 8 | -.019962 |
|   |   | 0 | 0 | 4 | 4 | .483935 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$V = 6 \quad t = 0$

| $J$ | $\alpha\infty$ | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | $D$ |
|---|---|---|---|---|---|---|
| 7 | 7 | 0 | 0 | 4 | 5 | -.430073 |
| | | 0 | 0 | 4 | 8 | .417656 |
| | | 0 | 0 | 5 | 5 | .336534 |
| | | 0 | 0 | 5 | 8 | -.504620 |
| | | 0 | 0 | 8 | 8 | .072361 |
| | | 1/2 | 1/2 | 3/2 | 11/2 | .141058 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | -.223155 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | .285411 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | -.236288 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | -.447058 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .038720 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .634201 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | -.203456 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .379135 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .061152 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .023787 |
| 8 | 1 | 0 | 0 | 2 | 8 | .183058 |
| | | 0 | 0 | 4 | 4 | .000000 |
| | | 0 | 0 | 4 | 5 | -.092843 |
| | | 0 | 0 | 4 | 8 | -.212537 |
| | | 0 | 0 | 5 | 5 | .000000 |
| | | 0 | 0 | 5 | 8 | .955352 |
| | | 0 | 0 | 8 | 8 | .000000 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | .498585 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .004899 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | .086332 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .493047 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .249532 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .662249 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 8 | 2 | 0 | 0 | 2 | 8 | .486657 |
| | | 0 | 0 | 4 | 4 | .000000 |
| | | 0 | 0 | 4 | 5 | .708482 |
| | | 0 | 0 | 4 | 8 | .503529 |
| | | 0 | 0 | 5 | 5 | .000000 |
| | | 0 | 0 | 5 | 8 | .087622 |
| | | 0 | 0 | 8 | 8 | .000000 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | -.279584 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .702116 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | -.194387 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .336608 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .486295 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.203204 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 8 | 3 | 0 | 0 | 2 | 8 | .833345 |
| | | 0 | 0 | 4 | 4 | .000000 |
| | | 0 | 0 | 4 | 5 | -.245908 |
| | | 0 | 0 | 4 | 8 | -.411543 |
| | | 0 | 0 | 5 | 5 | .000000 |
| | | 0 | 0 | 5 | 8 | -.275133 |
| | | 0 | 0 | 8 | 8 | .000000 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | -.696189 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | -.539689 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | .125798 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .312421 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .284779 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .171829 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 8 | 4 | 0 | 0 | 2 | 8 | .187594 |
| | | 0 | 0 | 4 | 4 | .000000 |
| | | 0 | 0 | 4 | 5 | -.654952 |

| $J$ | $\alpha$ | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | $D$ |
|---|---|---|---|---|---|---|
| 8 | 4 | 0 | 0 | 4 | 8 | .729328 |
| | | 0 | 0 | 5 | 5 | .000000 |
| | | 0 | 0 | 5 | 8 | .062658 |
| | | 0 | 0 | 8 | 8 | .000000 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | -.149981 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | -.015557 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | -.777822 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.382898 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .085596 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .467246 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 9 | 1 | 0 | 0 | 2 | 8 | .013667 |
| | | 0 | 0 | 4 | 5 | .298439 |
| | | 0 | 0 | 4 | 8 | .245633 |
| | | 0 | 0 | 5 | 5 | -.258903 |
| | | 0 | 0 | 5 | 8 | .337702 |
| | | 0 | 0 | 8 | 8 | .818131 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | .015864 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | -.049662 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .235853 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .545581 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .335980 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | -.438505 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .129221 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | -.567564 |
| 9 | 2 | 0 | 0 | 2 | 8 | -.377790 |
| | | 0 | 0 | 4 | 5 | -.237700 |
| | | 0 | 0 | 4 | 8 | .435058 |
| | | 0 | 0 | 5 | 5 | .333175 |
| | | 0 | 0 | 5 | 8 | -.627438 |
| | | 0 | 0 | 8 | 8 | .326824 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | -.377176 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | -.277151 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | -.006434 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.218937 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .707952 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .233367 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.417368 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | -.055664 |
| 9 | 3 | 0 | 0 | 2 | 8 | .007929 |
| | | 0 | 0 | 4 | 5 | .259277 |
| | | 0 | 0 | 4 | 8 | -.464573 |
| | | 0 | 0 | 5 | 5 | -.538138 |
| | | 0 | 0 | 5 | 8 | -.638901 |
| | | 0 | 0 | 8 | 8 | .138193 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | -.435403 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | -.140176 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | -.101974 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .152011 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .161401 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | -.462923 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .338746 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .634171 |
| 9 | 4 | 0 | 0 | 2 | 8 | -.721909 |
| | | 0 | 0 | 4 | 5 | .631094 |
| | | 0 | 0 | 4 | 8 | -.048870 |
| | | 0 | 0 | 5 | 5 | .135028 |
| | | 0 | 0 | 5 | 8 | .123185 |
| | | 0 | 0 | 8 | 8 | -.211597 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | .091549 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | -.493347 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .462576 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.277456 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | -.304848 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | -.453915 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

### $V = 6$  $t = 0$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 9 | 4 | 1/2 | 1/2 | 11/2 | 15/2 | -.394499 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .051662 |
| 9 | 5 | 0 | 0 | 2 | 8 | .579034 |
|   |   | 0 | 0 | 4 | 5 | .622627 |
|   |   | 0 | 0 | 4 | 8 | .252260 |
|   |   | 0 | 0 | 5 | 5 | .373477 |
|   |   | 0 | 0 | 5 | 8 | -.257216 |
|   |   | 0 | 0 | 8 | 8 | -.088172 |
|   |   | 1/2 | 1/2 | 3/2 | 15/2 | .259849 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.526307 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.649870 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .395875 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.102649 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .013798 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.253989 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .034549 |
| 9 | 6 | 0 | 0 | 2 | 8 | -.024338 |
|   |   | 0 | 0 | 4 | 5 | .035555 |
|   |   | 0 | 0 | 4 | 8 | .684498 |
|   |   | 0 | 0 | 5 | 5 | -.612089 |
|   |   | 0 | 0 | 5 | 8 | -.052432 |
|   |   | 0 | 0 | 8 | 8 | -.390132 |
|   |   | 1/2 | 1/2 | 3/2 | 15/2 | -.545312 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .000551 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .277186 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .525742 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.393589 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .349984 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.265091 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .041525 |
| 10 | 1 | 0 | 0 | 2 | 8 | .860432 |
|   |   | 0 | 0 | 4 | 8 | -.342800 |
|   |   | 0 | 0 | 5 | 5 | .000000 |
|   |   | 0 | 0 | 5 | 8 | .377022 |
|   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.149278 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.109207 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.822918 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .537212 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 10 | 2 | 0 | 0 | 2 | 8 | .446058 |
|   |   | 0 | 0 | 4 | 8 | .148994 |
|   |   | 0 | 0 | 5 | 5 | .000000 |
|   |   | 0 | 0 | 5 | 8 | -.882515 |
|   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.311476 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.897143 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.028102 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.311975 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 10 | 3 | 0 | 0 | 2 | 8 | -.246352 |
| 10 | 3 | 0 | 0 | 4 | 8 | -.927518 |
|   |   | 0 | 0 | 5 | 5 | .000000 |
|   |   | 0 | 0 | 5 | 8 | -.281108 |
|   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.904543 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .226585 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .281641 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .226138 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 11 | 1 | 0 | 0 | 4 | 8 | -.733726 |
|   |   | 0 | 0 | 5 | 8 | .103669 |
|   |   | 0 | 0 | 8 | 8 | -.671490 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.258570 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .688779 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .676109 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .040021 |
| 11 | 2 | 0 | 0 | 4 | 8 | -.056222 |
|   |   | 0 | 0 | 5 | 8 | -.994166 |
|   |   | 0 | 0 | 8 | 8 | -.092053 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .517874 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.481246 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .695818 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.126676 |
| 11 | 3 | 0 | 0 | 4 | 8 | .677115 |
|   |   | 0 | 0 | 5 | 8 | .029789 |
|   |   | 0 | 0 | 8 | 8 | -.735275 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.648223 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.332135 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .130272 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.672699 |
| 12 | 1 | 0 | 0 | 4 | 8 | -.371040 |
|   |   | 0 | 0 | 5 | 8 | -.928617 |
|   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.999053 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.043505 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 12 | 2 | 0 | 0 | 4 | 8 | -.928617 |
|   |   | 0 | 0 | 5 | 8 | .371040 |
|   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .043505 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.999053 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| 13 | 1 | 0 | 0 | 5 | 8 | -.996803 |
|   |   | 0 | 0 | 8 | 8 | -.079902 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.575364 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .817897 |
| 13 | 2 | 0 | 0 | 5 | 8 | .079902 |
|   |   | 0 | 0 | 8 | 8 | -.996803 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .817897 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.575364 |
| 15 | 1 | 0 | 0 | 8 | 8 | -1.00000 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | 1.00000 |

### $V = 6$  $t = 1$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 0 | 1 | 1/2 | 1/2 | 3/2 | 3/2 | -.635674 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .302765 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .593916 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.389249 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 2 | -1.00000 |
|   |   | 1 | 0 | 4 | 4 | .000000 |
| 0 | 2 | 1/2 | 1/2 | 3/2 | 3/2 | .381993 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .396958 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.253420 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.701730 |
| 0 | 2 | 1/2 | 1/2 | 15/2 | 15/2 | .373979 |
|   |   | 1 | 0 | 2 | 2 | .000000 |
|   |   | 1 | 0 | 4 | 4 | 1.00000 |
| 1 | 1 | 1/2 | 1/2 | 3/2 | 3/2 | .000000 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | -.540575 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.841296 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 2 | -.718669 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

$v = 6 \quad t = 1$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 0 | 4 | 4 | .040518 |
|   |   | 1 | 0 | 4 | 5 | .601867 |
|   |   | 1 | 0 | 6 | 5 | -.345876 |
| 1 | 2 | 1/2 | 1/2 | 3/2 | 3/2 | .000000 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .841296 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.540575 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 2 | .332415 |
|   |   | 1 | 0 | 4 | 4 | .653399 |
|   |   | 1 | 0 | 4 | 5 | -.037323 |
|   |   | 1 | 0 | 6 | 5 | -.679101 |
| 2 | 1 | 1/2 | 1/2 | 3/2 | 3/2 | .505908 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .365288 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .137580 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .168072 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .473377 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .119645 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.487172 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.288463 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .067058 |
|   |   | 1 | 0 | 2 | 2 | -.047641 |
|   |   | 1 | 0 | 2 | 4 | .186002 |
|   |   | 1 | 0 | 4 | 2 | -.051147 |
|   |   | 1 | 0 | 4 | 4 | .123056 |
|   |   | 1 | 0 | 4 | 5 | -.858891 |
|   |   | 1 | 0 | 6 | 4 | .006467 |
|   |   | 1 | 0 | 6 | 5 | .352220 |
|   |   | 1 | 0 | 6 | 8 | .289104 |
| 2 | 2 | 1/2 | 1/2 | 3/2 | 3/2 | .488549 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | -.038140 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .150798 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .079903 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.772623 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .236875 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.102122 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.009940 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .259149 |
|   |   | 1 | 0 | 2 | 2 | -.062937 |
|   |   | 1 | 0 | 2 | 4 | -.063480 |
|   |   | 1 | 0 | 4 | 2 | -.829017 |
|   |   | 1 | 0 | 4 | 4 | -.123397 |
|   |   | 1 | 0 | 4 | 5 | .210642 |
|   |   | 1 | 0 | 6 | 4 | -.013380 |
|   |   | 1 | 0 | 6 | 5 | .493422 |
|   |   | 1 | 0 | 6 | 8 | -.038727 |
| 2 | 3 | 1/2 | 1/2 | 3/2 | 3/2 | .423382 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .409048 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .016480 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.583415 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .038184 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.194965 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .268164 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .421611 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.153771 |
|   |   | 1 | 0 | 2 | 2 | .715070 |
|   |   | 1 | 0 | 2 | 4 | .046663 |
|   |   | 1 | 0 | 4 | 2 | -.361056 |
|   |   | 1 | 0 | 4 | 4 | .401851 |
|   |   | 1 | 0 | 4 | 5 | -.162706 |
|   |   | 1 | 0 | 6 | 4 | .052540 |
|   |   | 1 | 0 | 6 | 5 | -.353780 |
|   |   | 1 | 0 | 6 | 8 | -.200646 |
| 2 | 4 | 1/2 | 1/2 | 3/2 | 3/2 | .019826 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | -.097597 |

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 2 | 4 | 1/2 | 1/2 | 5/2 | 5/2 | -.765015 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.313008 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.066430 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.183326 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.429458 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.028608 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .289113 |
|   |   | 1 | 0 | 2 | 2 | -.017338 |
|   |   | 1 | 0 | 2 | 4 | -.822982 |
|   |   | 1 | 0 | 4 | 2 | .061873 |
|   |   | 1 | 0 | 4 | 4 | .441948 |
|   |   | 1 | 0 | 4 | 5 | .036248 |
|   |   | 1 | 0 | 6 | 4 | .106773 |
|   |   | 1 | 0 | 6 | 5 | .118201 |
|   |   | 1 | 0 | 6 | 8 | .310754 |
| 2 | 5 | 1/2 | 1/2 | 3/2 | 3/2 | .482656 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .355913 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .116359 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .170485 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .494198 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .112361 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.498082 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.296904 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .068332 |
|   |   | 1 | 0 | 2 | 2 | -.113987 |
|   |   | 1 | 0 | 2 | 4 | .320273 |
|   |   | 1 | 0 | 4 | 2 | -.033071 |
|   |   | 1 | 0 | 4 | 4 | .242090 |
|   |   | 1 | 0 | 4 | 5 | -.268975 |
|   |   | 1 | 0 | 6 | 4 | .015282 |
|   |   | 1 | 0 | 6 | 5 | .655111 |
|   |   | 1 | 0 | 6 | 8 | .568313 |
| 3 | 1 | 1/2 | 1/2 | 3/2 | 3/2 | .000000 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | -.277786 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.062161 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.030858 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .822523 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.093685 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.115077 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.468460 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 2 | .067633 |
|   |   | 1 | 0 | 2 | 4 | .676834 |
|   |   | 1 | 0 | 2 | 5 | .168158 |
|   |   | 1 | 0 | 4 | 2 | -.091766 |
|   |   | 1 | 0 | 4 | 4 | .087874 |
|   |   | 1 | 0 | 4 | 5 | .149151 |
|   |   | 1 | 0 | 6 | 4 | .684743 |
|   |   | 1 | 0 | 6 | 5 | .032000 |
|   |   | 1 | 0 | 6 | 8 | .027541 |
| 3 | 2 | 1/2 | 1/2 | 3/2 | 3/2 | .000000 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .603806 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.185017 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .272592 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.087737 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .111991 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .357237 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.615648 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 2 | -.040946 |
|   |   | 1 | 0 | 2 | 4 | -.296745 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha:J_\lambda J_\mu}$

V = 6    t = 1

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 3 | 2 | 1 | 0 | 2 | 5 | .581666 |
|   |   | 1 | 0 | 4 | 2 | -.093420 |
|   |   | 1 | 0 | 4 | 4 | -.098281 |
|   |   | 1 | 0 | 4 | 5 | .429611 |
|   |   | 1 | 0 | 6 | 4 | .070344 |
|   |   | 1 | 0 | 6 | 5 | -.495509 |
|   |   | 1 | 0 | 6 | 8 | .344239 |
| 3 | 3 | 1/2 | 1/2 | 3/2 | 3/2 | .000000 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .023395 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | .716358 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.536182 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.001949 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .242128 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .314761 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.202772 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 2 | .707199 |
|   |   | 1 | 0 | 2 | 4 | .012574 |
|   |   | 1 | 0 | 2 | 5 | -.009215 |
|   |   | 1 | 0 | 4 | 2 | -.463043 |
|   |   | 1 | 0 | 4 | 4 | -.317317 |
|   |   | 1 | 0 | 4 | 5 | -.295680 |
|   |   | 1 | 0 | 6 | 4 | -.050354 |
|   |   | 1 | 0 | 6 | 5 | .022985 |
|   |   | 1 | 0 | 6 | 8 | .306656 |
| 3 | 4 | 1/2 | 1/2 | 3/2 | 3/2 | .000000 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .284679 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | .486791 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .599578 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .384329 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .198327 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.021124 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .367437 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 2 | .357366 |
|   |   | 1 | 0 | 2 | 4 | -.235908 |
|   |   | 1 | 0 | 2 | 5 | .470420 |
|   |   | 1 | 0 | 4 | 2 | -.122260 |
|   |   | 1 | 0 | 4 | 4 | .560842 |
|   |   | 1 | 0 | 4 | 5 | -.054790 |
|   |   | 1 | 0 | 6 | 4 | .015325 |
|   |   | 1 | 0 | 6 | 5 | .203794 |
|   |   | 1 | 0 | 6 | 8 | -.470193 |
| 3 | 5 | 1/2 | 1/2 | 3/2 | 3/2 | .000000 |
|   |   | 1/2 | 1/2 | 3/2 | 5/2 | .244943 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.248594 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.272856 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .099934 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .756079 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.469113 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .045213 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 2 | .410646 |
|   |   | 1 | 0 | 2 | 4 | -.138258 |
|   |   | 1 | 0 | 2 | 5 | -.063802 |

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 3 | 5 | 1 | 0 | 4 | 2 | .420242 |
|   |   | 1 | 0 | 4 | 4 | -.465217 |
|   |   | 1 | 0 | 4 | 5 | .506114 |
|   |   | 1 | 0 | 6 | 4 | .118679 |
|   |   | 1 | 0 | 6 | 5 | .234138 |
|   |   | 1 | 0 | 6 | 8 | -.300162 |
| 4 | 1 | 1/2 | 1/2 | 3/2 | 5/2 | -.359527 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | .043219 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.457644 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .486388 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .392231 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.088550 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .007706 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .369039 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.043691 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.152372 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.194427 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.248992 |
|   |   | 1 | 0 | 2 | 2 | .370018 |
|   |   | 1 | 0 | 2 | 4 | -.213437 |
|   |   | 1 | 0 | 2 | 5 | .614297 |
|   |   | 1 | 0 | 4 | 2 | -.300935 |
|   |   | 1 | 0 | 4 | 4 | -.092970 |
|   |   | 1 | 0 | 4 | 5 | -.382603 |
|   |   | 1 | 0 | 4 | 8 | -.081255 |
|   |   | 1 | 0 | 6 | 2 | -.062038 |
|   |   | 1 | 0 | 6 | 4 | -.055259 |
|   |   | 1 | 0 | 6 | 5 | .271949 |
|   |   | 1 | 0 | 6 | 8 | -.327290 |
| 4 | 2 | 1/2 | 1/2 | 3/2 | 5/2 | .109073 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.026070 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.003705 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.267192 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.052842 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.241702 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.118265 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .520436 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.426899 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .080626 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.423371 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .449422 |
|   |   | 1 | 0 | 2 | 2 | -.201441 |
|   |   | 1 | 0 | 2 | 4 | .359610 |
|   |   | 1 | 0 | 2 | 5 | .153453 |
|   |   | 1 | 0 | 4 | 2 | -.273750 |
|   |   | 1 | 0 | 4 | 4 | .136789 |
|   |   | 1 | 0 | 4 | 5 | .439704 |
|   |   | 1 | 0 | 4 | 8 | -.102094 |
|   |   | 1 | 0 | 6 | 2 | -.486735 |
|   |   | 1 | 0 | 6 | 4 | .168720 |
|   |   | 1 | 0 | 6 | 5 | .493165 |
|   |   | 1 | 0 | 6 | 8 | .023495 |
| 4 | 3 | 1/2 | 1/2 | 3/2 | 5/2 | .217274 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.652635 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.110418 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .122172 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.025581 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .159176 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .570065 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.104030 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.352671 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.023473 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.084764 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

**V = 6   t = 1**

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 4 | 3 | 1/2 | 1/2 | 15/2 | 15/2 | -.076423 |
|   |   | 1 | 0 | 2 | 2 | .303336 |
|   |   | 1 | 0 | 2 | 4 | -.070141 |
|   |   | 1 | 0 | 2 | 5 | .203165 |
|   |   | 1 | 0 | 4 | 2 | .686567 |
|   |   | 1 | 0 | 4 | 4 | -.082605 |
|   |   | 1 | 0 | 4 | 5 | .197053 |
|   |   | 1 | 0 | 4 | 8 | -.118557 |
|   |   | 1 | 0 | 6 | 2 | -.534779 |
|   |   | 1 | 0 | 6 | 4 | -.088617 |
|   |   | 1 | 0 | 6 | 5 | -.178505 |
|   |   | 1 | 0 | 6 | 8 | -.070728 |
| 4 | 4 | 1/2 | 1/2 | 3/2 | 5/2 | .362704 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | .009109 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .395268 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .635892 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | -.020507 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .229942 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.358593 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .131720 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.252351 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.136800 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .138473 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .083452 |
|   |   | 1 | 0 | 2 | 2 | -.347757 |
|   |   | 1 | 0 | 2 | 4 | -.646044 |
|   |   | 1 | 0 | 2 | 5 | -.192179 |
|   |   | 1 | 0 | 4 | 2 | -.124700 |
|   |   | 1 | 0 | 4 | 4 | -.337697 |
|   |   | 1 | 0 | 4 | 5 | .241682 |
|   |   | 1 | 0 | 4 | 8 | -.046056 |
|   |   | 1 | 0 | 6 | 2 | -.164456 |
|   |   | 1 | 0 | 6 | 4 | -.393809 |
|   |   | 1 | 0 | 6 | 5 | .168105 |
|   |   | 1 | 0 | 6 | 8 | -.155719 |
| 4 | 5 | 1/2 | 1/2 | 3/2 | 5/2 | .263423 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | .233097 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.418234 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .108870 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .307449 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .019374 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .116296 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.346292 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .025219 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.191821 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .101452 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .642989 |
|   |   | 1 | 0 | 2 | 2 | .499256 |
|   |   | 1 | 0 | 2 | 4 | -.024058 |
|   |   | 1 | 0 | 2 | 5 | -.218962 |
|   |   | 1 | 0 | 4 | 2 | -.156133 |
|   |   | 1 | 0 | 4 | 4 | -.231094 |
|   |   | 1 | 0 | 4 | 5 | -.003672 |
|   |   | 1 | 0 | 4 | 8 | -.313241 |
|   |   | 1 | 0 | 6 | 2 | -.023273 |
|   |   | 1 | 0 | 6 | 4 | -.177733 |
|   |   | 1 | 0 | 6 | 5 | .211357 |
|   |   | 1 | 0 | 6 | 8 | .670450 |
| 4 | 6 | 1/2 | 1/2 | 3/2 | 5/2 | .508920 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.190175 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .038388 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | -.201351 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .577907 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .148650 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.139930 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .175832 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .396972 |
| 4 | 6 | 1/2 | 1/2 | 11/2 | 11/2 | .196540 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.176001 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.170461 |
|   |   | 1 | 0 | 2 | 2 | .213868 |
|   |   | 1 | 0 | 2 | 4 | .324126 |
|   |   | 1 | 0 | 2 | 5 | -.405214 |
|   |   | 1 | 0 | 4 | 2 | .145378 |
|   |   | 1 | 0 | 4 | 4 | -.392759 |
|   |   | 1 | 0 | 4 | 5 | -.177711 |
|   |   | 1 | 0 | 4 | 8 | .467697 |
|   |   | 1 | 0 | 6 | 2 | -.073649 |
|   |   | 1 | 0 | 6 | 4 | -.076113 |
|   |   | 1 | 0 | 6 | 5 | .390102 |
|   |   | 1 | 0 | 6 | 8 | -.309662 |
| 4 | 7 | 1/2 | 1/2 | 3/2 | 5/2 | -.374787 |
|   |   | 1/2 | 1/2 | 3/2 | 9/2 | -.098610 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .169832 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .253672 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .179616 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .152343 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .002043 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.183607 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .014698 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .744284 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.132343 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .309425 |
|   |   | 1 | 0 | 2 | 2 | .108080 |
|   |   | 1 | 0 | 2 | 4 | .222003 |
|   |   | 1 | 0 | 2 | 5 | .048888 |
|   |   | 1 | 0 | 4 | 2 | .000350 |
|   |   | 1 | 0 | 4 | 4 | .469717 |
|   |   | 1 | 0 | 4 | 5 | .135844 |
|   |   | 1 | 0 | 4 | 8 | .073178 |
|   |   | 1 | 0 | 6 | 2 | .141185 |
|   |   | 1 | 0 | 6 | 4 | -.813572 |
|   |   | 1 | 0 | 6 | 5 | .052821 |
|   |   | 1 | 0 | 6 | 8 | -.087056 |
| 5 | 1 | 1/2 | 1/2 | 3/2 | 9/2 | -.252726 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.406005 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .385441 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.180483 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.483741 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .141797 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .465410 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .345588 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 4 | .082867 |
|   |   | 1 | 0 | 2 | 5 | -.660280 |
|   |   | 1 | 0 | 4 | 2 | -.198519 |
|   |   | 1 | 0 | 4 | 4 | -.114526 |
|   |   | 1 | 0 | 4 | 5 | -.042446 |
|   |   | 1 | 0 | 4 | 8 | .246861 |
|   |   | 1 | 0 | 6 | 2 | -.456619 |
|   |   | 1 | 0 | 6 | 4 | .429676 |
|   |   | 1 | 0 | 6 | 5 | -.036229 |
|   |   | 1 | 0 | 6 | 8 | .217852 |
| 5 | 2 | 1/2 | 1/2 | 3/2 | 9/2 | -.220625 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .160448 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .426460 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.129697 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.354295 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .117063 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

v = 6   t = 1

| J | $\alpha$ | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 5 | 2 | 1/2 | 1/2 | 9/2 | 15/2 | -.766062 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.028506 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 4 | .254669 |
|   |   | 1 | 0 | 2 | 5 | -.268559 |
|   |   | 1 | 0 | 4 | 2 | .325995 |
|   |   | 1 | 0 | 4 | 4 | -.280598 |
|   |   | 1 | 0 | 4 | 5 | .433986 |
|   |   | 1 | 0 | 4 | 8 | -.315053 |
|   |   | 1 | 0 | 6 | 2 | .360373 |
|   |   | 1 | 0 | 6 | 4 | .341684 |
|   |   | 1 | 0 | 6 | 5 | .332083 |
|   |   | 1 | 0 | 6 | 8 | -.183067 |
| 5 | 3 | 1/2 | 1/2 | 3/2 | 9/2 | .440424 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.050918 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .298725 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.270688 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .165729 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .660690 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .114000 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.404911 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 4 | .145639 |
|   |   | 1 | 0 | 2 | 5 | .086718 |
|   |   | 1 | 0 | 4 | 2 | -.739981 |
|   |   | 1 | 0 | 4 | 4 | -.137349 |
|   |   | 1 | 0 | 4 | 5 | .231177 |
|   |   | 1 | 0 | 4 | 8 | .349241 |
|   |   | 1 | 0 | 6 | 2 | .474417 |
|   |   | 1 | 0 | 6 | 4 | .062870 |
|   |   | 1 | 0 | 6 | 5 | .008586 |
|   |   | 1 | 0 | 6 | 8 | -.017980 |
| 5 | 4 | 1/2 | 1/2 | 3/2 | 9/2 | .295633 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .225619 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .166043 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .692463 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.034375 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .339028 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.013149 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .488188 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 4 | -.548705 |
|   |   | 1 | 0 | 2 | 5 | -.261746 |
|   |   | 1 | 0 | 4 | 2 | -.186609 |
|   |   | 1 | 0 | 4 | 4 | .650490 |
|   |   | 1 | 0 | 4 | 5 | .120718 |
|   |   | 1 | 0 | 4 | 8 | -.231013 |
|   |   | 1 | 0 | 6 | 2 | .190204 |
|   |   | 1 | 0 | 6 | 4 | .212796 |
|   |   | 1 | 0 | 6 | 5 | .063677 |
|   |   | 1 | 0 | 6 | 8 | -.137833 |
| 5 | 5 | 1/2 | 1/2 | 3/2 | 9/2 | -.736553 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | .380643 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .028429 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .188383 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .194700 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .351689 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .248059 |
| 5 | 5 | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.230604 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 4 | -.025276 |
|   |   | 1 | 0 | 2 | 5 | -.108254 |
|   |   | 1 | 0 | 4 | 2 | .396842 |
|   |   | 1 | 0 | 4 | 4 | .202325 |
|   |   | 1 | 0 | 4 | 5 | .535018 |
|   |   | 1 | 0 | 4 | 8 | .551994 |
|   |   | 1 | 0 | 6 | 2 | .061564 |
|   |   | 1 | 0 | 6 | 4 | -.134078 |
|   |   | 1 | 0 | 6 | 5 | -.417422 |
|   |   | 1 | 0 | 6 | 8 | -.047690 |
| 5 | 6 | 1/2 | 1/2 | 3/2 | 9/2 | -.095009 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.559638 |
|   |   | 1/2 | 1/2 | 5/2 | 5/2 | .000000 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .391437 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .520537 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .217617 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.222026 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.080207 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.387957 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 4 | -.526098 |
|   |   | 1 | 0 | 2 | 5 | -.185242 |
|   |   | 1 | 0 | 4 | 2 | -.079658 |
|   |   | 1 | 0 | 4 | 4 | -.424017 |
|   |   | 1 | 0 | 4 | 5 | .186976 |
|   |   | 1 | 0 | 4 | 8 | .138561 |
|   |   | 1 | 0 | 6 | 2 | -.205434 |
|   |   | 1 | 0 | 6 | 4 | -.431274 |
|   |   | 1 | 0 | 6 | 5 | .363677 |
|   |   | 1 | 0 | 6 | 8 | -.296901 |
| 6 | 1 | 1/2 | 1/2 | 3/2 | 9/2 | .379256 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.004162 |
|   |   | 1/2 | 1/2 | 3/2 | 15/2 | -.346715 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .284726 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .195285 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.168497 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.358132 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.155464 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.511697 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.177397 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .101091 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.363853 |
|   |   | 1 | 0 | 2 | 4 | .014617 |
|   |   | 1 | 0 | 2 | 5 | .245434 |
|   |   | 1 | 0 | 2 | 8 | .334535 |
|   |   | 1 | 0 | 4 | 2 | .088339 |
|   |   | 1 | 0 | 4 | 4 | .015267 |
|   |   | 1 | 0 | 4 | 5 | .188753 |
|   |   | 1 | 0 | 4 | 8 | -.185238 |
|   |   | 1 | 0 | 6 | 2 | .540960 |
|   |   | 1 | 0 | 6 | 4 | .002390 |
|   |   | 1 | 0 | 6 | 5 | -.574429 |
|   |   | 1 | 0 | 6 | 8 | -.356435 |
| 6 | 2 | 1/2 | 1/2 | 3/2 | 9/2 | .356945 |
|   |   | 1/2 | 1/2 | 3/2 | 11/2 | -.031603 |
|   |   | 1/2 | 1/2 | 3/2 | 15/2 | .047050 |
|   |   | 1/2 | 1/2 | 5/2 | 9/2 | .119312 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.270482 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.115100 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .479038 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .170052 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.242680 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$v = 6 \quad t = 1$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 6 | 2 | 1/2 | 1/2 | 11/2 | 11/2 | .504971 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.239150 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | -.373173 |
|  |  | 1 | 0 | 2 | 4 | .053226 |
|  |  | 1 | 0 | 2 | 5 | -.335593 |
|  |  | 1 | 0 | 2 | 8 | .274203 |
|  |  | 1 | 0 | 4 | 2 | -.396069 |
|  |  | 1 | 0 | 4 | 4 | .055592 |
|  |  | 1 | 0 | 4 | 5 | .379714 |
|  |  | 1 | 0 | 4 | 8 | -.107807 |
|  |  | 1 | 0 | 6 | 2 | -.392802 |
|  |  | 1 | 0 | 6 | 4 | .008703 |
|  |  | 1 | 0 | 6 | 5 | .103524 |
|  |  | 1 | 0 | 6 | 8 | -.573153 |
| 6 | 3 | 1/2 | 1/2 | 3/2 | 9/2 | .396849 |
|  |  | 1/2 | 1/2 | 3/2 | 11/2 | -.120048 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | .754092 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | -.015748 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | -.078780 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | -.109487 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | -.213688 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | .265520 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | -.153225 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | -.284366 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.001398 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .143165 |
|  |  | 1 | 0 | 2 | 4 | .052999 |
|  |  | 1 | 0 | 2 | 5 | -.077030 |
|  |  | 1 | 0 | 2 | 8 | .130298 |
|  |  | 1 | 0 | 4 | 2 | .493323 |
|  |  | 1 | 0 | 4 | 4 | .055355 |
|  |  | 1 | 0 | 4 | 5 | .477229 |
|  |  | 1 | 0 | 4 | 8 | .553564 |
|  |  | 1 | 0 | 6 | 2 | -.305699 |
|  |  | 1 | 0 | 6 | 4 | .008666 |
|  |  | 1 | 0 | 6 | 5 | -.279715 |
|  |  | 1 | 0 | 6 | 8 | .147984 |
| 6 | 4 | 1/2 | 1/2 | 3/2 | 9/2 | -.316882 |
|  |  | 1/2 | 1/2 | 3/2 | 11/2 | -.666469 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | -.064332 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | .201799 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | .095799 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | -.221603 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | .410765 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | .132524 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | -.235688 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | -.316026 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.089522 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .050312 |
|  |  | 1 | 0 | 2 | 4 | -.050583 |
|  |  | 1 | 0 | 2 | 5 | .606414 |
|  |  | 1 | 0 | 2 | 8 | .258353 |
|  |  | 1 | 0 | 4 | 2 | -.529161 |
|  |  | 1 | 0 | 4 | 4 | -.052832 |
|  |  | 1 | 0 | 4 | 5 | -.115194 |
|  |  | 1 | 0 | 4 | 8 | .250279 |
|  |  | 1 | 0 | 6 | 2 | -.338423 |
|  |  | 1 | 0 | 6 | 4 | -.008271 |
|  |  | 1 | 0 | 6 | 5 | -.230433 |
|  |  | 1 | 0 | 6 | 8 | .191173 |
| 6 | 5 | 1/2 | 1/2 | 3/2 | 9/2 | .120067 |
|  |  | 1/2 | 1/2 | 3/2 | 11/2 | .259123 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | -.158101 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | .566986 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | -.336550 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | .407321 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | .149419 |
| 6 | 5 | 1/2 | 1/2 | 9/2 | 11/2 | .292195 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | .075340 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | -.312835 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.282233 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .043505 |
|  |  | 1 | 0 | 2 | 4 | -.542155 |
|  |  | 1 | 0 | 2 | 5 | .346805 |
|  |  | 1 | 0 | 2 | 8 | -.016174 |
|  |  | 1 | 0 | 4 | 2 | .034872 |
|  |  | 1 | 0 | 4 | 4 | .390944 |
|  |  | 1 | 0 | 4 | 5 | .328914 |
|  |  | 1 | 0 | 4 | 8 | .084460 |
|  |  | 1 | 0 | 6 | 2 | .174212 |
|  |  | 1 | 0 | 6 | 4 | .296693 |
|  |  | 1 | 0 | 6 | 5 | .437251 |
|  |  | 1 | 0 | 6 | 8 | -.081217 |
| 6 | 6 | 1/2 | 1/2 | 3/2 | 9/2 | .168027 |
|  |  | 1/2 | 1/2 | 3/2 | 11/2 | .328047 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | -.080354 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | .094949 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | .670430 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | -.142825 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | .268330 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | .389884 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | -.068179 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | .128552 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | .043796 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .362907 |
|  |  | 1 | 0 | 2 | 4 | .718060 |
|  |  | 1 | 0 | 2 | 5 | .324200 |
|  |  | 1 | 0 | 2 | 8 | -.193032 |
|  |  | 1 | 0 | 4 | 2 | -.033954 |
|  |  | 1 | 0 | 4 | 4 | .346676 |
|  |  | 1 | 0 | 4 | 5 | .346100 |
|  |  | 1 | 0 | 4 | 8 | -.234288 |
|  |  | 1 | 0 | 6 | 2 | .006239 |
|  |  | 1 | 0 | 6 | 4 | -.044947 |
|  |  | 1 | 0 | 6 | 5 | .157435 |
|  |  | 1 | 0 | 6 | 8 | .138433 |
| 6 | 7 | 1/2 | 1/2 | 3/2 | 9/2 | -.639882 |
|  |  | 1/2 | 1/2 | 3/2 | 11/2 | -.144138 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | -.044313 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | .031307 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | .179872 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | .126672 |
|  |  | 1/2 | 1/2 | 9/2 | 9/2 | -.015895 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | -.051957 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | .398045 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | -.350926 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | .107506 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .471523 |
|  |  | 1 | 0 | 2 | 4 | -.059351 |
|  |  | 1 | 0 | 2 | 5 | .364794 |
|  |  | 1 | 0 | 2 | 8 | .331632 |
|  |  | 1 | 0 | 4 | 2 | .000000 |
|  |  | 1 | 0 | 4 | 4 | -.061991 |
|  |  | 1 | 0 | 4 | 5 | -.507883 |
|  |  | 1 | 0 | 4 | 8 | .135746 |
|  |  | 1 | 0 | 6 | 2 | .000000 |
|  |  | 1 | 0 | 6 | 4 | -.009705 |
|  |  | 1 | 0 | 6 | 5 | .197120 |
|  |  | 1 | 0 | 6 | 8 | .658982 |
| 7 | 1 | 1/2 | 1/2 | 3/2 | 11/2 | -.412030 |
|  |  | 1/2 | 1/2 | 3/2 | 15/2 | .188774 |
|  |  | 1/2 | 1/2 | 5/2 | 9/2 | -.132056 |
|  |  | 1/2 | 1/2 | 5/2 | 11/2 | .386745 |
|  |  | 1/2 | 1/2 | 5/2 | 15/2 | .754349 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha: J_\lambda J_\mu}$

V = 6   t = 1

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 1 | 1/2 | 1/2 | 9/2 | 9/2 | .000000 | | 7 | 4 | 1 | 0 | 2 | 8 | .222891 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.049031 | | | | 1 | 0 | 4 | 4 | -.502696 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .093228 | | | | 1 | 0 | 4 | 5 | -.164162 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 | | | | 1 | 0 | 4 | 8 | -.064110 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .217823 | | | | 1 | 0 | 6 | 2 | .016534 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 | | | | 1 | 0 | 6 | 4 | -.734240 |
| | | 1 | 0 | 2 | 5 | -.556677 | | | | 1 | 0 | 6 | 5 | -.010333 |
| | | 1 | 0 | 2 | 8 | .168589 | | | | 1 | 0 | 6 | 8 | -.280057 |
| | | 1 | 0 | 4 | 4 | .254344 | | 7 | 5 | 1/2 | 1/2 | 3/2 | 11/2 | -.277100 |
| | | 1 | 0 | 4 | 5 | .453888 | | | | 1/2 | 1/2 | 3/2 | 15/2 | .037596 |
| | | 1 | 0 | 4 | 8 | .073976 | | | | 1/2 | 1/2 | 5/2 | 9/2 | -.508125 |
| | | 1 | 0 | 6 | 2 | -.263647 | | | | 1/2 | 1/2 | 5/2 | 11/2 | .502481 |
| | | 1 | 0 | 6 | 4 | -.284186 | | | | 1/2 | 1/2 | 5/2 | 15/2 | -.350182 |
| | | 1 | 0 | 6 | 5 | -.380967 | | | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1 | 0 | 6 | 8 | -.300172 | | | | 1/2 | 1/2 | 9/2 | 11/2 | .288060 |
| 7 | 2 | 1/2 | 1/2 | 3/2 | 11/2 | .259149 | | | | 1/2 | 1/2 | 9/2 | 15/2 | -.075719 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | -.679380 | | | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | -.255243 | | | | 1/2 | 1/2 | 11/2 | 15/2 | -.446973 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .251959 | | | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | .035312 | | | | 1 | 0 | 2 | 5 | -.281422 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 | | | | 1 | 0 | 2 | 8 | -.633955 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.256806 | | | | 1 | 0 | 4 | 4 | -.558160 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .519534 | | | | 1 | 0 | 4 | 5 | .204166 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 | | | | 1 | 0 | 4 | 8 | .373600 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | .074430 | | | | 1 | 0 | 6 | 2 | -.096392 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 | | | | 1 | 0 | 6 | 4 | -.017794 |
| | | 1 | 0 | 2 | 5 | -.045389 | | | | 1 | 0 | 6 | 5 | .067943 |
| | | 1 | 0 | 2 | 8 | -.399587 | | | | 1 | 0 | 6 | 8 | .108973 |
| | | 1 | 0 | 4 | 4 | -.092739 | | 7 | 6 | 1/2 | 1/2 | 3/2 | 11/2 | .249533 |
| | | 1 | 0 | 4 | 5 | .072613 | | | | 1/2 | 1/2 | 3/2 | 15/2 | -.292778 |
| | | 1 | 0 | 4 | 8 | -.628077 | | | | 1/2 | 1/2 | 5/2 | 9/2 | .329686 |
| | | 1 | 0 | 6 | 2 | .461281 | | | | 1/2 | 1/2 | 5/2 | 11/2 | .318518 |
| | | 1 | 0 | 6 | 4 | .071586 | | | | 1/2 | 1/2 | 5/2 | 15/2 | .108299 |
| | | 1 | 0 | 6 | 5 | -.397813 | | | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
| | | 1 | 0 | 6 | 8 | -.231855 | | | | 1/2 | 1/2 | 9/2 | 11/2 | .740965 |
| 7 | 3 | 1/2 | 1/2 | 3/2 | 11/2 | -.396505 | | | | 1/2 | 1/2 | 9/2 | 15/2 | -.173305 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | -.106517 | | | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | .573001 | | | | 1/2 | 1/2 | 11/2 | 15/2 | .225999 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | -.048080 | | | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | .024829 | | | | 1 | 0 | 2 | 5 | -.500991 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 | | | | 1 | 0 | 2 | 8 | .061707 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | .119272 | | | | 1 | 0 | 4 | 4 | .026544 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | .491422 | | | | 1 | 0 | 4 | 5 | -.696443 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 | | | | 1 | 0 | 4 | 8 | .196279 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.494427 | | | | 1 | 0 | 6 | 2 | .253449 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 | | | | 1 | 0 | 6 | 4 | -.090419 |
| | | 1 | 0 | 2 | 5 | -.220117 | | | | 1 | 0 | 6 | 5 | -.306540 |
| | | 1 | 0 | 2 | 8 | -.148508 | | | | 1 | 0 | 6 | 8 | .233578 |
| | | 1 | 0 | 4 | 4 | .346121 | | 8 | 1 | 1/2 | 1/2 | 3/2 | 15/2 | -.561008 |
| | | 1 | 0 | 4 | 5 | .105424 | | | | 1/2 | 1/2 | 5/2 | 11/2 | .188961 |
| | | 1 | 0 | 4 | 8 | .096265 | | | | 1/2 | 1/2 | 5/2 | 15/2 | .178045 |
| | | 1 | 0 | 6 | 2 | .538863 | | | | 1/2 | 1/2 | 9/2 | 9/2 | .257569 |
| | | 1 | 0 | 6 | 4 | -.321471 | | | | 1/2 | 1/2 | 9/2 | 11/2 | -.168769 |
| | | 1 | 0 | 6 | 5 | .612117 | | | | 1/2 | 1/2 | 9/2 | 15/2 | -.487516 |
| | | 1 | 0 | 6 | 8 | -.144601 | | | | 1/2 | 1/2 | 11/2 | 11/2 | .064869 |
| 7 | 4 | 1/2 | 1/2 | 3/2 | 11/2 | .532102 | | | | 1/2 | 1/2 | 11/2 | 15/2 | .510730 |
| | | 1/2 | 1/2 | 3/2 | 15/2 | .185555 | | | | 1/2 | 1/2 | 15/2 | 15/2 | -.142531 |
| | | 1/2 | 1/2 | 5/2 | 9/2 | .257769 | | | | 1 | 0 | 2 | 8 | .090436 |
| | | 1/2 | 1/2 | 5/2 | 11/2 | .419576 | | | | 1 | 0 | 4 | 4 | .070513 |
| | | 1/2 | 1/2 | 5/2 | 15/2 | .218960 | | | | 1 | 0 | 4 | 5 | -.115985 |
| | | 1/2 | 1/2 | 9/2 | 9/2 | .000000 | | | | 1 | 0 | 4 | 8 | .206657 |
| | | 1/2 | 1/2 | 9/2 | 11/2 | -.333552 | | | | 1 | 0 | 6 | 2 | .361666 |
| | | 1/2 | 1/2 | 9/2 | 15/2 | -.209659 | | | | 1 | 0 | 6 | 4 | .041768 |
| | | 1/2 | 1/2 | 11/2 | 11/2 | .000000 | | | | 1 | 0 | 6 | 5 | .500003 |
| | | 1/2 | 1/2 | 11/2 | 15/2 | -.486613 | | | | 1 | 0 | 6 | 8 | .282164 |
| | | 1/2 | 1/2 | 15/2 | 15/2 | .000000 | | 8 | 2 | 1/2 | 1/2 | 3/2 | 15/2 | -.127756 |
| | | 1 | 0 | 2 | 5 | .220539 | | | | 1/2 | 1/2 | 5/2 | 11/2 | .166173 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$v = 6 \quad t = 1$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 8 | 2 | 1/2 | 1/2 | 5/2 | 15/2 | .292899 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.352413 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.657365 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .309933 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .274301 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.175714 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.334329 |
|   |   | 1 | 0 | 2 | 8 | .154285 |
|   |   | 1 | 0 | 4 | 4 | .117415 |
|   |   | 1 | 0 | 4 | 5 | .060219 |
|   |   | 1 | 0 | 4 | 8 | .055802 |
|   |   | 1 | 0 | 6 | 2 | -.731586 |
|   |   | 1 | 0 | 6 | 4 | .069550 |
|   |   | 1 | 0 | 6 | 5 | .508385 |
|   |   | 1 | 0 | 6 | 8 | -.396433 |
| 8 | 3 | 1/2 | 1/2 | 3/2 | 15/2 | .335719 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.414979 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .230659 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.264758 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .259343 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.310273 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .528266 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .206808 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.326225 |
|   |   | 1 | 0 | 2 | 8 | .023838 |
|   |   | 1 | 0 | 4 | 4 | -.620098 |
|   |   | 1 | 0 | 4 | 5 | .199688 |
|   |   | 1 | 0 | 4 | 8 | .128082 |
|   |   | 1 | 0 | 6 | 2 | .083820 |
|   |   | 1 | 0 | 6 | 4 | .728683 |
|   |   | 1 | 0 | 6 | 5 | .007356 |
|   |   | 1 | 0 | 6 | 8 | -.143430 |
| 8 | 4 | 1/2 | 1/2 | 3/2 | 15/2 | -.186074 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | -.701488 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.403575 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .371096 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.351533 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .149579 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .148086 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.002879 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.069427 |
|   |   | 1 | 0 | 2 | 8 | -.261755 |
|   |   | 1 | 0 | 4 | 4 | .481520 |
|   |   | 1 | 0 | 4 | 5 | -.378091 |
|   |   | 1 | 0 | 4 | 8 | -.275709 |
|   |   | 1 | 0 | 6 | 2 | -.023710 |
|   |   | 1 | 0 | 6 | 4 | .624660 |
|   |   | 1 | 0 | 6 | 5 | .133168 |
|   |   | 1 | 0 | 6 | 8 | .268623 |
| 8 | 5 | 1/2 | 1/2 | 3/2 | 15/2 | .331238 |
|   |   | 1/2 | 1/2 | 5/2 | 11/2 | .117633 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.106234 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.068592 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.265975 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .245535 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .225828 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .650685 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .505008 |
|   |   | 1 | 0 | 2 | 8 | .193008 |
|   |   | 1 | 0 | 4 | 4 | -.059518 |
|   |   | 1 | 0 | 4 | 5 | .556871 |
|   |   | 1 | 0 | 4 | 8 | -.418738 |
|   |   | 1 | 0 | 6 | 2 | -.324211 |
|   |   | 1 | 0 | 6 | 4 | .020754 |
|   |   | 1 | 0 | 6 | 5 | -.063649 |
|   |   | 1 | 0 | 6 | 8 | .603460 |
| 8 | 6 | 1/2 | 1/2 | 3/2 | 15/2 | .034428 |
| 8 | 6 | 1/2 | 1/2 | 5/2 | 11/2 | -.048236 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.533364 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | -.595434 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.215197 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.347745 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | -.379372 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .141860 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.161819 |
|   |   | 1 | 0 | 2 | 8 | -.260309 |
|   |   | 1 | 0 | 4 | 4 | .394616 |
|   |   | 1 | 0 | 4 | 5 | .485671 |
|   |   | 1 | 0 | 4 | 8 | .704821 |
|   |   | 1 | 0 | 6 | 2 | .022338 |
|   |   | 1 | 0 | 6 | 4 | .118463 |
|   |   | 1 | 0 | 6 | 5 | .002452 |
|   |   | 1 | 0 | 6 | 8 | .171260 |
| 9 | 1 | 1/2 | 1/2 | 3/2 | 15/2 | .201427 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | .787185 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .009437 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.058937 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.579834 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 8 | -.680684 |
|   |   | 1 | 0 | 4 | 5 | .000000 |
|   |   | 1 | 0 | 4 | 8 | -.312543 |
|   |   | 1 | 0 | 6 | 4 | .661012 |
|   |   | 1 | 0 | 6 | 5 | .000000 |
|   |   | 1 | 0 | 6 | 8 | .045267 |
| 9 | 2 | 1/2 | 1/2 | 3/2 | 15/2 | -.201427 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.787183 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | -.009437 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | .058937 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | .579834 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 8 | .680684 |
|   |   | 1 | 0 | 4 | 5 | .000000 |
|   |   | 1 | 0 | 4 | 8 | .312543 |
|   |   | 1 | 0 | 6 | 4 | -.661012 |
|   |   | 1 | 0 | 6 | 5 | .000000 |
|   |   | 1 | 0 | 6 | 8 | -.045267 |
| 9 | 3 | 1/2 | 1/2 | 3/2 | 15/2 | -.099764 |
|   |   | 1/2 | 1/2 | 5/2 | 15/2 | -.389882 |
|   |   | 1/2 | 1/2 | 9/2 | 9/2 | .000000 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .618870 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.442813 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.508878 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|   |   | 1 | 0 | 2 | 8 | -.274754 |
|   |   | 1 | 0 | 4 | 5 | .000000 |
|   |   | 1 | 0 | 4 | 8 | .036798 |
|   |   | 1 | 0 | 6 | 4 | -.327391 |
|   |   | 1 | 0 | 6 | 5 | .000000 |
|   |   | 1 | 0 | 6 | 8 | .903311 |
| 10 | 1 | 1/2 | 1/2 | 5/2 | 15/2 | -.760442 |
|   |   | 1/2 | 1/2 | 9/2 | 11/2 | .235595 |
|   |   | 1/2 | 1/2 | 9/2 | 15/2 | -.119378 |
|   |   | 1/2 | 1/2 | 11/2 | 11/2 | .140602 |
|   |   | 1/2 | 1/2 | 11/2 | 15/2 | -.532184 |
|   |   | 1/2 | 1/2 | 15/2 | 15/2 | -.221323 |
|   |   | 1 | 0 | 2 | 8 | -.195349 |
|   |   | 1 | 0 | 4 | 8 | -.208621 |
|   |   | 1 | 0 | 6 | 4 | -.699913 |

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha:J_\lambda J_\mu}$

### $v = 6$   $t = 1$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 10 | 1 | 1 | 0 | 6 | 5 | .575144 |
|  |  | 1 | 0 | 6 | 8 | .312486 |
| 10 | 2 | 1/2 | 1/2 | 5/2 | 15/2 | -.142172 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | .423318 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | -.161117 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | -.596040 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | .459142 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | -.456678 |
|  |  | 1 | 0 | 2 | 8 | .005751 |
|  |  | 1 | 0 | 4 | 8 | .006142 |
|  |  | 1 | 0 | 6 | 4 | .630319 |
|  |  | 1 | 0 | 6 | 5 | .776237 |
|  |  | 1 | 0 | 6 | 8 | -.009199 |
| 10 | 3 | 1/2 | 1/2 | 5/2 | 15/2 | .000000 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | .627371 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | .277961 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | .627154 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | .366979 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .033896 |
|  |  | 1 | 0 | 2 | 8 | .882599 |
|  |  | 1 | 0 | 4 | 8 | -.339786 |
|  |  | 1 | 0 | 6 | 4 | .000000 |
|  |  | 1 | 0 | 6 | 5 | .000000 |
|  |  | 1 | 0 | 6 | 8 | .324906 |
| 10 | 4 | 1/2 | 1/2 | 5/2 | 15/2 | .000000 |
|  |  | 1/2 | 1/2 | 9/2 | 11/2 | -.765763 |
|  |  | 1/2 | 1/2 | 9/2 | 15/2 | .000000 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | -.201593 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.145602 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | -.593100 |
|  |  | 1 | 0 | 2 | 8 | -.534058 |
|  |  | 1 | 0 | 4 | 8 | .818317 |

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 10 | 4 | 1 | 0 | 6 | 4 | .000000 |
|  |  | 1 | 0 | 6 | 5 | .000000 |
|  |  | 1 | 0 | 6 | 8 | .212459 |
| 11 | 1 | 1/2 | 1/2 | 9/2 | 15/2 | .743522 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | .668711 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|  |  | 1 | 0 | 4 | 8 | .799263 |
|  |  | 1 | 0 | 6 | 5 | .000000 |
|  |  | 1 | 0 | 6 | 8 | -.600982 |
| 11 | 2 | 1/2 | 1/2 | 9/2 | 15/2 | .668711 |
|  |  | 1/2 | 1/2 | 11/2 | 11/2 | .000000 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.743522 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|  |  | 1 | 0 | 4 | 8 | .207359 |
|  |  | 1 | 0 | 6 | 5 | -.938591 |
|  |  | 1 | 0 | 6 | 8 | .275772 |
| 12 | 1 | 1/2 | 1/2 | 9/2 | 15/2 | -.735516 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.690546 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | -.313625 |
|  |  | 1 | 0 | 4 | 8 | .984227 |
|  |  | 1 | 0 | 6 | 8 | -.176908 |
| 12 | 2 | 1/2 | 1/2 | 9/2 | 15/2 | .600928 |
|  |  | 1/2 | 1/2 | 11/2 | 15/2 | -.364487 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | -.711361 |
|  |  | 1 | 0 | 4 | 8 | .176908 |
|  |  | 1 | 0 | 6 | 8 | .984227 |
| 13 | 1 | 1/2 | 1/2 | 11/2 | 15/2 | 1.00000 |
|  |  | 1/2 | 1/2 | 15/2 | 15/2 | .000000 |
|  |  | 1 | 0 | 6 | 8 | 1.00000 |
| 14 | 1 | 1/2 | 1/2 | 15/2 | 15/2 | -1.00000 |
|  |  | 1 | 0 | 6 | 8 | -1.00000 |

### $v = 7$   $t = 1/2$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 1/2 | 1 | 0 | 1/2 | 2 | 3/2 | .415027 |
|  |  | 0 | 1/2 | 2 | 5/2 | -.604843 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.545959 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.060945 |
|  |  | 0 | 1/2 | 5 | 11/2 | .118160 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.382322 |
| 1/2 | 2 | 0 | 1/2 | 2 | 3/2 | .503914 |
|  |  | 0 | 1/2 | 2 | 5/2 | .186832 |
|  |  | 0 | 1/2 | 4 | 9/2 | .445203 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.163329 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.479388 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.506429 |
| 1/2 | 3 | 0 | 1/2 | 2 | 3/2 | -.313224 |
|  |  | 0 | 1/2 | 2 | 5/2 | .343580 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.267852 |
|  |  | 0 | 1/2 | 5 | 9/2 | .593580 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.012842 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.599664 |
| 3/2 | 1 | 0 | 1/2 | 2 | 3/2 | -.110817 |
|  |  | 0 | 1/2 | 2 | 5/2 | .309344 |
|  |  | 0 | 1/2 | 4 | 5/2 | .361512 |
|  |  | 0 | 1/2 | 4 | 9/2 | .140248 |
|  |  | 0 | 1/2 | 4 | 11/2 | .538157 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.267127 |
|  |  | 0 | 1/2 | 5 | 11/2 | .539131 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.300056 |
| 3/2 | 2 | 0 | 1/2 | 2 | 3/2 | .896333 |
|  |  | 0 | 1/2 | 2 | 5/2 | -.120241 |
|  |  | 0 | 1/2 | 4 | 5/2 | -.101651 |
|  |  | 0 | 1/2 | 4 | 9/2 | .057003 |
|  |  | 0 | 1/2 | 4 | 11/2 | .020763 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.399754 |

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|
| 3/2 | 2 | 0 | 1/2 | 5 | 11/2 | .043033 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.080382 |
| 3/2 | 3 | 0 | 1/2 | 2 | 3/2 | .038079 |
|  |  | 0 | 1/2 | 2 | 5/2 | -.591772 |
|  |  | 0 | 1/2 | 4 | 5/2 | .320974 |
|  |  | 0 | 1/2 | 4 | 9/2 | .476997 |
|  |  | 0 | 1/2 | 4 | 11/2 | .418096 |
|  |  | 0 | 1/2 | 5 | 9/2 | .240688 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.291654 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.002934 |
| 5/2 | 1 | 0 | 1/2 | 2 | 3/2 | -.143308 |
|  |  | 0 | 1/2 | 2 | 5/2 | -.356195 |
|  |  | 0 | 1/2 | 2 | 9/2 | -.147876 |
|  |  | 0 | 1/2 | 4 | 3/2 | -.359734 |
|  |  | 0 | 1/2 | 4 | 5/2 | -.535696 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.234698 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.130063 |
|  |  | 0 | 1/2 | 5 | 5/2 | .142867 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.537600 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.171827 |
|  |  | 0 | 1/2 | 5 | 15/2 | -.020554 |
|  |  | 0 | 1/2 | 8 | 11/2 | -.020404 |
|  |  | 0 | 1/2 | 8 | 15/2 | .050546 |
| 5/2 | 2 | 0 | 1/2 | 2 | 3/2 | .017230 |
|  |  | 0 | 1/2 | 2 | 5/2 | .478525 |
|  |  | 0 | 1/2 | 2 | 9/2 | -.052577 |
|  |  | 0 | 1/2 | 4 | 3/2 | .420956 |
|  |  | 0 | 1/2 | 4 | 5/2 | -.496973 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.137043 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.119862 |
|  |  | 0 | 1/2 | 5 | 5/2 | .452820 |
|  |  | 0 | 1/2 | 5 | 9/2 | .099057 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$v = 7$    $t = 1/2$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5/2 | 2 | 0 | 1/2 | 5 | 11/2 | .029688 | 7/2 | 1 | 0 | 1/2 | 5 | 9/2 | -.156346 |
| | | 0 | 1/2 | 5 | 15/2 | .203322 | | | 0 | 1/2 | 5 | 11/2 | .570132 |
| | | 0 | 1/2 | 8 | 11/2 | .211441 | | | 0 | 1/2 | 5 | 15/2 | .000933 |
| | | 0 | 1/2 | 8 | 15/2 | .093975 | | | 0 | 1/2 | 8 | 9/2 | .145914 |
| 5/2 | 3 | 0 | 1/2 | 2 | 3/2 | .191992 | | | 0 | 1/2 | 8 | 11/2 | -.279313 |
| | | 0 | 1/2 | 2 | 5/2 | -.115249 | | | 0 | 1/2 | 8 | 15/2 | -.081743 |
| | | 0 | 1/2 | 2 | 9/2 | .066149 | 7/2 | 2 | 0 | 1/2 | 2 | 3/2 | .209292 |
| | | 0 | 1/2 | 4 | 3/2 | .146535 | | | 0 | 1/2 | 2 | 5/2 | .417407 |
| | | 0 | 1/2 | 4 | 5/2 | .041108 | | | 0 | 1/2 | 2 | 9/2 | .086916 |
| | | 0 | 1/2 | 4 | 9/2 | -.327452 | | | 0 | 1/2 | 2 | 11/2 | -.035416 |
| | | 0 | 1/2 | 4 | 11/2 | -.148643 | | | 0 | 1/2 | 4 | 3/2 | .385732 |
| | | 0 | 1/2 | 5 | 5/2 | .238977 | | | 0 | 1/2 | 4 | 5/2 | .006374 |
| | | 0 | 1/2 | 5 | 9/2 | .068587 | | | 0 | 1/2 | 4 | 9/2 | .324906 |
| | | 0 | 1/2 | 5 | 11/2 | .349204 | | | 0 | 1/2 | 4 | 11/2 | -.261231 |
| | | 0 | 1/2 | 5 | 15/2 | -.475297 | | | 0 | 1/2 | 4 | 15/2 | .135488 |
| | | 0 | 1/2 | 8 | 11/2 | -.517175 | | | 0 | 1/2 | 5 | 3/2 | .216644 |
| | | 0 | 1/2 | 8 | 15/2 | .340389 | | | 0 | 1/2 | 5 | 5/2 | -.007052 |
| 5/2 | 4 | 0 | 1/2 | 2 | 3/2 | .014318 | | | 0 | 1/2 | 5 | 9/2 | -.125000 |
| | | 0 | 1/2 | 2 | 5/2 | -.099612 | | | 0 | 1/2 | 5 | 11/2 | .124393 |
| | | 0 | 1/2 | 2 | 9/2 | -.203477 | | | 0 | 1/2 | 5 | 15/2 | .366973 |
| | | 0 | 1/2 | 4 | 3/2 | .356012 | | | 0 | 1/2 | 8 | 9/2 | -.345118 |
| | | 0 | 1/2 | 4 | 5/2 | -.194084 | | | 0 | 1/2 | 8 | 11/2 | .286461 |
| | | 0 | 1/2 | 4 | 9/2 | -.331302 | | | 0 | 1/2 | 8 | 15/2 | -.135083 |
| | | 0 | 1/2 | 4 | 11/2 | .521004 | 7/2 | 3 | 0 | 1/2 | 2 | 3/2 | -.594343 |
| | | 0 | 1/2 | 5 | 5/2 | -.326346 | | | 0 | 1/2 | 2 | 5/2 | .044165 |
| | | 0 | 1/2 | 5 | 9/2 | -.102140 | | | 0 | 1/2 | 2 | 9/2 | .418567 |
| | | 0 | 1/2 | 5 | 11/2 | .253644 | | | 0 | 1/2 | 2 | 11/2 | -.165604 |
| | | 0 | 1/2 | 5 | 15/2 | -.284555 | | | 0 | 1/2 | 4 | 3/2 | .225553 |
| | | 0 | 1/2 | 8 | 11/2 | .211667 | | | 0 | 1/2 | 4 | 5/2 | .085438 |
| | | 0 | 1/2 | 8 | 15/2 | -.309526 | | | 0 | 1/2 | 4 | 9/2 | -.014835 |
| 5/2 | 5 | 0 | 1/2 | 2 | 3/2 | .620626 | | | 0 | 1/2 | 4 | 11/2 | -.251867 |
| | | 0 | 1/2 | 2 | 5/2 | .158589 | | | 0 | 1/2 | 4 | 15/2 | -.167197 |
| | | 0 | 1/2 | 2 | 9/2 | -.577933 | | | 0 | 1/2 | 5 | 3/2 | -.322231 |
| | | 0 | 1/2 | 4 | 3/2 | -.099953 | | | 0 | 1/2 | 5 | 5/2 | .063026 |
| | | 0 | 1/2 | 4 | 5/2 | -.192143 | | | 0 | 1/2 | 5 | 9/2 | .048012 |
| | | 0 | 1/2 | 4 | 9/2 | .282090 | | | 0 | 1/2 | 5 | 11/2 | .353918 |
| | | 0 | 1/2 | 4 | 11/2 | -.065642 | | | 0 | 1/2 | 5 | 15/2 | .146185 |
| | | 0 | 1/2 | 5 | 5/2 | -.231923 | | | 0 | 1/2 | 8 | 9/2 | .139572 |
| | | 0 | 1/2 | 5 | 9/2 | .050018 | | | 0 | 1/2 | 8 | 11/2 | -.126989 |
| | | 0 | 1/2 | 5 | 11/2 | -.162965 | | | 0 | 1/2 | 8 | 15/2 | -.007196 |
| | | 0 | 1/2 | 5 | 15/2 | -.143616 | 7/2 | 4 | 0 | 1/2 | 2 | 3/2 | -.237595 |
| | | 0 | 1/2 | 8 | 11/2 | -.080302 | | | 0 | 1/2 | 2 | 5/2 | -.027406 |
| | | 0 | 1/2 | 8 | 15/2 | .122278 | | | 0 | 1/2 | 2 | 9/2 | .331130 |
| 5/2 | 6 | 0 | 1/2 | 2 | 3/2 | -.047937 | | | 0 | 1/2 | 2 | 11/2 | .190626 |
| | | 0 | 1/2 | 2 | 5/2 | -.222306 | | | 0 | 1/2 | 4 | 3/2 | -.125671 |
| | | 0 | 1/2 | 2 | 9/2 | .369616 | | | 0 | 1/2 | 4 | 5/2 | -.283005 |
| | | 0 | 1/2 | 4 | 3/2 | -.094089 | | | 0 | 1/2 | 4 | 9/2 | .048747 |
| | | 0 | 1/2 | 4 | 5/2 | -.527355 | | | 0 | 1/2 | 4 | 11/2 | .496696 |
| | | 0 | 1/2 | 4 | 9/2 | .152052 | | | 0 | 1/2 | 4 | 15/2 | .434840 |
| | | 0 | 1/2 | 4 | 11/2 | .266518 | | | 0 | 1/2 | 5 | 3/2 | -.205556 |
| | | 0 | 1/2 | 5 | 5/2 | -.223654 | | | 0 | 1/2 | 5 | 5/2 | .038584 |
| | | 0 | 1/2 | 5 | 9/2 | .525530 | | | 0 | 1/2 | 5 | 9/2 | -.256003 |
| | | 0 | 1/2 | 5 | 11/2 | -.119180 | | | 0 | 1/2 | 5 | 11/2 | -.143510 |
| | | 0 | 1/2 | 5 | 15/2 | -.033112 | | | 0 | 1/2 | 5 | 15/2 | .208805 |
| | | 0 | 1/2 | 8 | 11/2 | -.052811 | | | 0 | 1/2 | 8 | 9/2 | -.014971 |
| | | 0 | 1/2 | 8 | 15/2 | .293711 | | | 0 | 1/2 | 8 | 11/2 | .245843 |
| 7/2 | 1 | 0 | 1/2 | 2 | 3/2 | .232967 | | | 0 | 1/2 | 8 | 15/2 | -.169180 |
| | | 0 | 1/2 | 2 | 5/2 | .138573 | 7/2 | 5 | 0 | 1/2 | 2 | 3/2 | .111652 |
| | | 0 | 1/2 | 2 | 9/2 | .283936 | | | 0 | 1/2 | 2 | 5/2 | .155524 |
| | | 0 | 1/2 | 2 | 11/2 | -.065700 | | | 0 | 1/2 | 2 | 9/2 | -.386265 |
| | | 0 | 1/2 | 4 | 3/2 | -.349537 | | | 0 | 1/2 | 2 | 11/2 | -.514799 |
| | | 0 | 1/2 | 4 | 5/2 | -.239466 | | | 0 | 1/2 | 4 | 3/2 | .176333 |
| | | 0 | 1/2 | 4 | 9/2 | -.034947 | | | 0 | 1/2 | 4 | 5/2 | -.116437 |
| | | 0 | 1/2 | 4 | 11/2 | .109706 | | | 0 | 1/2 | 4 | 9/2 | .139951 |
| | | 0 | 1/2 | 4 | 15/2 | -.020260 | | | 0 | 1/2 | 4 | 11/2 | .216477 |
| | | 0 | 1/2 | 5 | 3/2 | .332359 | | | 0 | 1/2 | 4 | 15/2 | .291865 |
| | | 0 | 1/2 | 5 | 5/2 | -.287149 | | | 0 | 1/2 | 5 | 3/2 | -.393740 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D_{(vt)\alpha;J_\lambda J_\mu}^{T_\lambda T_\mu J}$

$v = 7 \quad t = 1/2$

| $J$ | $\alpha$ | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | $D$ | $J$ | $\alpha$ | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | $D$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7/2 | 5 | 0 | 1/2 | 5 | 5/2 | -.286251 | 9/2 | 2 | 0 | 1/2 | 5 | 9/2 | .156064 |
|  |  | 0 | 1/2 | 5 | 9/2 | .178908 |  |  | 0 | 1/2 | 5 | 11/2 | -.231619 |
|  |  | 0 | 1/2 | 5 | 11/2 | .112270 |  |  | 0 | 1/2 | 5 | 15/2 | -.088300 |
|  |  | 0 | 1/2 | 5 | 15/2 | .067171 |  |  | 0 | 1/2 | 8 | 9/2 | -.389059 |
|  |  | 0 | 1/2 | 8 | 9/2 | .241378 |  |  | 0 | 1/2 | 8 | 11/2 | .066913 |
|  |  | 0 | 1/2 | 8 | 11/2 | -.082947 |  |  | 0 | 1/2 | 8 | 15/2 | .349112 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.040059 | 9/2 | 3 | 0 | 1/2 | 2 | 5/2 | -.145404 |
| 7/2 | 6 | 0 | 1/2 | 2 | 3/2 | .057549 |  |  | 0 | 1/2 | 2 | 9/2 | -.283780 |
|  |  | 0 | 1/2 | 2 | 5/2 | -.171485 |  |  | 0 | 1/2 | 2 | 11/2 | .226712 |
|  |  | 0 | 1/2 | 2 | 9/2 | -.128054 |  |  | 0 | 1/2 | 4 | 3/2 | -.562882 |
|  |  | 0 | 1/2 | 2 | 11/2 | .022195 |  |  | 0 | 1/2 | 4 | 5/2 | .274488 |
|  |  | 0 | 1/2 | 4 | 3/2 | -.314863 |  |  | 0 | 1/2 | 4 | 9/2 | -.142573 |
|  |  | 0 | 1/2 | 4 | 5/2 | .046093 |  |  | 0 | 1/2 | 4 | 11/2 | .201365 |
|  |  | 0 | 1/2 | 4 | 9/2 | .646978 |  |  | 0 | 1/2 | 4 | 15/2 | -.223983 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.049572 |  |  | 0 | 1/2 | 5 | 3/2 | -.103109 |
|  |  | 0 | 1/2 | 4 | 15/2 | -.034813 |  |  | 0 | 1/2 | 5 | 5/2 | .174661 |
|  |  | 0 | 1/2 | 5 | 3/2 | -.189419 |  |  | 0 | 1/2 | 5 | 9/2 | -.014951 |
|  |  | 0 | 1/2 | 5 | 5/2 | .415748 |  |  | 0 | 1/2 | 5 | 11/2 | .004068 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.022664 |  |  | 0 | 1/2 | 5 | 15/2 | .055422 |
|  |  | 0 | 1/2 | 5 | 11/2 | .344330 |  |  | 0 | 1/2 | 8 | 9/2 | .271076 |
|  |  | 0 | 1/2 | 5 | 15/2 | -.221969 |  |  | 0 | 1/2 | 8 | 11/2 | .291077 |
|  |  | 0 | 1/2 | 8 | 9/2 | .044452 |  |  | 0 | 1/2 | 8 | 15/2 | -.375563 |
|  |  | 0 | 1/2 | 8 | 11/2 | .197083 | 9/2 | 4 | 0 | 1/2 | 2 | 5/2 | .540108 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.094806 |  |  | 0 | 1/2 | 2 | 9/2 | .007474 |
| 7/2 | 7 | 0 | 1/2 | 2 | 3/2 | -.277969 |  |  | 0 | 1/2 | 2 | 11/2 | .150513 |
|  |  | 0 | 1/2 | 2 | 5/2 | .544994 |  |  | 0 | 1/2 | 4 | 3/2 | -.090681 |
|  |  | 0 | 1/2 | 2 | 9/2 | -.077565 |  |  | 0 | 1/2 | 4 | 5/2 | -.264705 |
|  |  | 0 | 1/2 | 2 | 11/2 | .341589 |  |  | 0 | 1/2 | 4 | 9/2 | -.229766 |
|  |  | 0 | 1/2 | 4 | 3/2 | .036311 |  |  | 0 | 1/2 | 4 | 11/2 | -.349365 |
|  |  | 0 | 1/2 | 4 | 5/2 | -.131495 |  |  | 0 | 1/2 | 4 | 15/2 | -.263192 |
|  |  | 0 | 1/2 | 4 | 9/2 | .071167 |  |  | 0 | 1/2 | 5 | 3/2 | .150842 |
|  |  | 0 | 1/2 | 4 | 11/2 | .243196 |  |  | 0 | 1/2 | 5 | 5/2 | -.158812 |
|  |  | 0 | 1/2 | 4 | 15/2 | -.004819 |  |  | 0 | 1/2 | 5 | 9/2 | -.088697 |
|  |  | 0 | 1/2 | 5 | 3/2 | .146013 |  |  | 0 | 1/2 | 5 | 11/2 | -.281954 |
|  |  | 0 | 1/2 | 5 | 5/2 | .030592 |  |  | 0 | 1/2 | 5 | 15/2 | .361688 |
|  |  | 0 | 1/2 | 5 | 9/2 | .537050 |  |  | 0 | 1/2 | 8 | 9/2 | .309285 |
|  |  | 0 | 1/2 | 5 | 11/2 | .103773 |  |  | 0 | 1/2 | 8 | 11/2 | -.035372 |
|  |  | 0 | 1/2 | 5 | 15/2 | -.296820 |  |  | 0 | 1/2 | 8 | 15/2 | .009821 |
|  |  | 0 | 1/2 | 8 | 9/2 | -.019018 | 9/2 | 5 | 0 | 1/2 | 2 | 5/2 | -.018338 |
|  |  | 0 | 1/2 | 8 | 11/2 | .050466 |  |  | 0 | 1/2 | 2 | 9/2 | -.055858 |
|  |  | 0 | 1/2 | 8 | 15/2 | .087839 |  |  | 0 | 1/2 | 2 | 11/2 | -.377133 |
| 9/2 | 1 | 0 | 1/2 | 2 | 5/2 | -.265353 |  |  | 0 | 1/2 | 4 | 3/2 | .245791 |
|  |  | 0 | 1/2 | 2 | 9/2 | -.069204 |  |  | 0 | 1/2 | 4 | 5/2 | -.099753 |
|  |  | 0 | 1/2 | 2 | 11/2 | -.482447 |  |  | 0 | 1/2 | 4 | 9/2 | -.201425 |
|  |  | 0 | 1/2 | 4 | 3/2 | -.066587 |  |  | 0 | 1/2 | 4 | 11/2 | .069182 |
|  |  | 0 | 1/2 | 4 | 5/2 | .057223 |  |  | 0 | 1/2 | 4 | 15/2 | .182938 |
|  |  | 0 | 1/2 | 4 | 9/2 | .006473 |  |  | 0 | 1/2 | 5 | 3/2 | .171470 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.061763 |  |  | 0 | 1/2 | 5 | 5/2 | .399159 |
|  |  | 0 | 1/2 | 4 | 15/2 | -.198939 |  |  | 0 | 1/2 | 5 | 9/2 | .387703 |
|  |  | 0 | 1/2 | 5 | 3/2 | -.424987 |  |  | 0 | 1/2 | 5 | 11/2 | .284820 |
|  |  | 0 | 1/2 | 5 | 5/2 | -.229598 |  |  | 0 | 1/2 | 5 | 15/2 | .344685 |
|  |  | 0 | 1/2 | 5 | 9/2 | .312838 |  |  | 0 | 1/2 | 8 | 9/2 | .387167 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.484680 |  |  | 0 | 1/2 | 8 | 11/2 | .058678 |
|  |  | 0 | 1/2 | 5 | 15/2 | .205904 |  |  | 0 | 1/2 | 8 | 15/2 | -.113183 |
|  |  | 0 | 1/2 | 8 | 9/2 | -.005311 | 9/2 | 6 | 0 | 1/2 | 2 | 5/2 | -.191525 |
|  |  | 0 | 1/2 | 8 | 11/2 | .073502 |  |  | 0 | 1/2 | 2 | 9/2 | -.311542 |
|  |  | 0 | 1/2 | 8 | 15/2 | .164202 |  |  | 0 | 1/2 | 2 | 11/2 | .107061 |
| 9/2 | 2 | 0 | 1/2 | 2 | 5/2 | .213472 |  |  | 0 | 1/2 | 4 | 3/2 | -.108634 |
|  |  | 0 | 1/2 | 2 | 9/2 | .189769 |  |  | 0 | 1/2 | 4 | 5/2 | -.587833 |
|  |  | 0 | 1/2 | 2 | 11/2 | -.015064 |  |  | 0 | 1/2 | 4 | 9/2 | .189984 |
|  |  | 0 | 1/2 | 4 | 3/2 | -.359589 |  |  | 0 | 1/2 | 4 | 11/2 | -.216609 |
|  |  | 0 | 1/2 | 4 | 5/2 | -.057151 |  |  | 0 | 1/2 | 4 | 15/2 | .058784 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.372513 |  |  | 0 | 1/2 | 5 | 3/2 | -.396187 |
|  |  | 0 | 1/2 | 4 | 11/2 | .103318 |  |  | 0 | 1/2 | 5 | 5/2 | .347819 |
|  |  | 0 | 1/2 | 4 | 15/2 | .140510 |  |  | 0 | 1/2 | 5 | 9/2 | -.170465 |
|  |  | 0 | 1/2 | 5 | 3/2 | .031510 |  |  | 0 | 1/2 | 5 | 11/2 | .062865 |
|  |  | 0 | 1/2 | 5 | 5/2 | .501916 |  |  | 0 | 1/2 | 5 | 15/2 | -.111415 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

$$v = 7 \qquad t = 1/2$$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9/2 | 6 | 0 | 1/2 | 8 | 9/2 | .191914 | 11/2 | 3 | 0 | 1/2 | 8 | 9/2 | .227182 |
|  |  | 0 | 1/2 | 8 | 11/2 | -.122792 |  |  | 0 | 1/2 | 8 | 11/2 | -.259253 |
|  |  | 0 | 1/2 | 8 | 15/2 | .188957 |  |  | 0 | 1/2 | 8 | 15/2 | .037206 |
| 9/2 | 7 | 0 | 1/2 | 2 | 5/2 | -.225725 | 11/2 | 4 | 0 | 1/2 | 2 | 9/2 | -.028936 |
|  |  | 0 | 1/2 | 2 | 9/2 | .258008 |  |  | 0 | 1/2 | 2 | 11/2 | .293140 |
|  |  | 0 | 1/2 | 2 | 11/2 | .068377 |  |  | 0 | 1/2 | 2 | 15/2 | .242972 |
|  |  | 0 | 1/2 | 4 | 3/2 | -.011408 |  |  | 0 | 1/2 | 4 | 3/2 | -.062412 |
|  |  | 0 | 1/2 | 4 | 5/2 | -.421960 |  |  | 0 | 1/2 | 4 | 5/2 | .460383 |
|  |  | 0 | 1/2 | 4 | 9/2 | .258500 |  |  | 0 | 1/2 | 4 | 9/2 | -.343230 |
|  |  | 0 | 1/2 | 4 | 11/2 | .022262 |  |  | 0 | 1/2 | 4 | 11/2 | .481365 |
|  |  | 0 | 1/2 | 4 | 15/2 | -.538004 |  |  | 0 | 1/2 | 4 | 15/2 | .202707 |
|  |  | 0 | 1/2 | 5 | 3/2 | .327871 |  |  | 0 | 1/2 | 5 | 3/2 | .195908 |
|  |  | 0 | 1/2 | 5 | 5/2 | .058153 |  |  | 0 | 1/2 | 5 | 5/2 | .015028 |
|  |  | 0 | 1/2 | 5 | 9/2 | .248430 |  |  | 0 | 1/2 | 5 | 9/2 | -.091961 |
|  |  | 0 | 1/2 | 5 | 11/2 | .069485 |  |  | 0 | 1/2 | 5 | 11/2 | .137341 |
|  |  | 0 | 1/2 | 5 | 15/2 | -.022344 |  |  | 0 | 1/2 | 5 | 15/2 | .086184 |
|  |  | 0 | 1/2 | 8 | 9/2 | -.176859 |  |  | 0 | 1/2 | 8 | 5/2 | .334029 |
|  |  | 0 | 1/2 | 8 | 11/2 | .362834 |  |  | 0 | 1/2 | 8 | 9/2 | -.207262 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.044769 |  |  | 0 | 1/2 | 8 | 11/2 | -.087138 |
| 11/2 | 1 | 0 | 1/2 | 2 | 9/2 | -.012852 |  |  | 0 | 1/2 | 8 | 15/2 | -.110725 |
|  |  | 0 | 1/2 | 2 | 11/2 | .248461 | 11/2 | 5 | 0 | 1/2 | 2 | 9/2 | -.174191 |
|  |  | 0 | 1/2 | 2 | 15/2 | .206678 |  |  | 0 | 1/2 | 2 | 11/2 | .370908 |
|  |  | 0 | 1/2 | 4 | 3/2 | .336149 |  |  | 0 | 1/2 | 2 | 15/2 | -.329216 |
|  |  | 0 | 1/2 | 4 | 5/2 | -.294597 |  |  | 0 | 1/2 | 4 | 3/2 | .028902 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.390671 |  |  | 0 | 1/2 | 4 | 5/2 | .097999 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.054884 |  |  | 0 | 1/2 | 4 | 9/2 | -.070200 |
|  |  | 0 | 1/2 | 4 | 15/2 | .170949 |  |  | 0 | 1/2 | 4 | 11/2 | .179657 |
|  |  | 0 | 1/2 | 5 | 3/2 | .381901 |  |  | 0 | 1/2 | 4 | 15/2 | -.109179 |
|  |  | 0 | 1/2 | 5 | 5/2 | .270049 |  |  | 0 | 1/2 | 5 | 3/2 | -.125394 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.183731 |  |  | 0 | 1/2 | 5 | 5/2 | .122623 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.252347 |  |  | 0 | 1/2 | 5 | 9/2 | -.107413 |
|  |  | 0 | 1/2 | 5 | 15/2 | -.161301 |  |  | 0 | 1/2 | 5 | 11/2 | -.242309 |
|  |  | 0 | 1/2 | 8 | 5/2 | -.196997 |  |  | 0 | 1/2 | 5 | 15/2 | .421408 |
|  |  | 0 | 1/2 | 8 | 9/2 | .141589 |  |  | 0 | 1/2 | 8 | 5/2 | -.252054 |
|  |  | 0 | 1/2 | 8 | 11/2 | -.291837 |  |  | 0 | 1/2 | 8 | 9/2 | .358897 |
|  |  | 0 | 1/2 | 8 | 15/2 | .156494 |  |  | 0 | 1/2 | 8 | 11/2 | .332544 |
| 11/2 | 2 | 0 | 1/2 | 2 | 9/2 | .027633 |  |  | 0 | 1/2 | 8 | 15/2 | -.287434 |
|  |  | 0 | 1/2 | 2 | 11/2 | -.172027 | 11/2 | 6 | 0 | 1/2 | 2 | 9/2 | -.754886 |
|  |  | 0 | 1/2 | 2 | 15/2 | -.155095 |  |  | 0 | 1/2 | 2 | 11/2 | .047545 |
|  |  | 0 | 1/2 | 4 | 3/2 | -.216114 |  |  | 0 | 1/2 | 2 | 15/2 | -.013660 |
|  |  | 0 | 1/2 | 4 | 5/2 | -.398925 |  |  | 0 | 1/2 | 4 | 3/2 | -.102750 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.048207 |  |  | 0 | 1/2 | 4 | 5/2 | .111373 |
|  |  | 0 | 1/2 | 4 | 11/2 | .436698 |  |  | 0 | 1/2 | 4 | 9/2 | .278613 |
|  |  | 0 | 1/2 | 4 | 15/2 | -.231269 |  |  | 0 | 1/2 | 4 | 11/2 | .172231 |
|  |  | 0 | 1/2 | 5 | 3/2 | .014596 |  |  | 0 | 1/2 | 4 | 15/2 | -.072185 |
|  |  | 0 | 1/2 | 5 | 5/2 | -.351983 |  |  | 0 | 1/2 | 5 | 3/2 | .044704 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.328400 |  |  | 0 | 1/2 | 5 | 5/2 | -.181479 |
|  |  | 0 | 1/2 | 5 | 11/2 | .183744 |  |  | 0 | 1/2 | 5 | 9/2 | .032358 |
|  |  | 0 | 1/2 | 5 | 15/2 | .226877 |  |  | 0 | 1/2 | 5 | 11/2 | -.301647 |
|  |  | 0 | 1/2 | 8 | 5/2 | -.168980 |  |  | 0 | 1/2 | 5 | 15/2 | -.380547 |
|  |  | 0 | 1/2 | 8 | 9/2 | -.102872 |  |  | 0 | 1/2 | 8 | 5/2 | -.015287 |
|  |  | 0 | 1/2 | 8 | 11/2 | -.357330 |  |  | 0 | 1/2 | 8 | 9/2 | -.035012 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.096018 |  |  | 0 | 1/2 | 8 | 11/2 | -.109494 |
| 11/2 | 3 | 0 | 1/2 | 2 | 9/2 | -.039791 |  |  | 0 | 1/2 | 8 | 15/2 | .083686 |
|  |  | 0 | 1/2 | 2 | 11/2 | -.195419 | 11/2 | 7 | 0 | 1/2 | 2 | 9/2 | .087984 |
|  |  | 0 | 1/2 | 2 | 15/2 | -.455398 |  |  | 0 | 1/2 | 2 | 11/2 | .253883 |
|  |  | 0 | 1/2 | 4 | 3/2 | -.151400 |  |  | 0 | 1/2 | 2 | 15/2 | .138477 |
|  |  | 0 | 1/2 | 4 | 5/2 | .196298 |  |  | 0 | 1/2 | 4 | 3/2 | -.540151 |
|  |  | 0 | 1/2 | 4 | 9/2 | -.120494 |  |  | 0 | 1/2 | 4 | 5/2 | .078822 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.258163 |  |  | 0 | 1/2 | 4 | 9/2 | .073273 |
|  |  | 0 | 1/2 | 4 | 15/2 | .189887 |  |  | 0 | 1/2 | 4 | 11/2 | -.404308 |
|  |  | 0 | 1/2 | 5 | 3/2 | -.028528 |  |  | 0 | 1/2 | 4 | 15/2 | -.006032 |
|  |  | 0 | 1/2 | 5 | 5/2 | .233387 |  |  | 0 | 1/2 | 5 | 3/2 | .462120 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.549587 |  |  | 0 | 1/2 | 5 | 5/2 | -.222536 |
|  |  | 0 | 1/2 | 5 | 11/2 | .007007 |  |  | 0 | 1/2 | 5 | 9/2 | -.255368 |
|  |  | 0 | 1/2 | 5 | 15/2 | -.095367 |  |  | 0 | 1/2 | 5 | 11/2 | .012004 |
|  |  | 0 | 1/2 | 8 | 5/2 | .295773 |  |  | 0 | 1/2 | 5 | 15/2 | .011746 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha; J_\lambda J_\mu}$

$$v = 7 \quad t = 1/2$$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11/2 | 7 | 0 | 1/2 | 8 | 5/2 | -.235011 | 13/2 | 3 | 0 | 1/2 | 8 | 3/2 | .548236 |
|  |  | 0 | 1/2 | 8 | 9/2 | -.106180 |  |  | 0 | 1/2 | 8 | 5/2 | .041608 |
|  |  | 0 | 1/2 | 8 | 11/2 | .207453 |  |  | 0 | 1/2 | 8 | 9/2 | .132437 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.060556 |  |  | 0 | 1/2 | 8 | 11/2 | -.283104 |
| 11/2 | 8 | 0 | 1/2 | 2 | 9/2 | .418767 |  |  | 0 | 1/2 | 8 | 15/2 | .062705 |
|  |  | 0 | 1/2 | 2 | 11/2 | -.270051 | 13/2 | 4 | 0 | 1/2 | 2 | 9/2 | -.138426 |
|  |  | 0 | 1/2 | 2 | 15/2 | .115864 |  |  | 0 | 1/2 | 2 | 11/2 | -.455148 |
|  |  | 0 | 1/2 | 4 | 3/2 | .211213 |  |  | 0 | 1/2 | 2 | 15/2 | -.018750 |
|  |  | 0 | 1/2 | 4 | 5/2 | .404683 |  |  | 0 | 1/2 | 4 | 5/2 | .027788 |
|  |  | 0 | 1/2 | 4 | 9/2 | .413049 |  |  | 0 | 1/2 | 4 | 9/2 | -.387572 |
|  |  | 0 | 1/2 | 4 | 11/2 | .265770 |  |  | 0 | 1/2 | 4 | 11/2 | -.317222 |
|  |  | 0 | 1/2 | 4 | 15/2 | -.252228 |  |  | 0 | 1/2 | 4 | 15/2 | -.189374 |
|  |  | 0 | 1/2 | 5 | 3/2 | .191837 |  |  | 0 | 1/2 | 5 | 3/2 | -.039610 |
|  |  | 0 | 1/2 | 5 | 5/2 | .013059 |  |  | 0 | 1/2 | 5 | 5/2 | -.387969 |
|  |  | 0 | 1/2 | 5 | 9/2 | -.260140 |  |  | 0 | 1/2 | 5 | 9/2 | .084992 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.244043 |  |  | 0 | 1/2 | 5 | 11/2 | -.055752 |
|  |  | 0 | 1/2 | 5 | 15/2 | -.139672 |  |  | 0 | 1/2 | 5 | 15/2 | .183823 |
|  |  | 0 | 1/2 | 8 | 5/2 | -.122620 |  |  | 0 | 1/2 | 8 | 3/2 | .242691 |
|  |  | 0 | 1/2 | 8 | 9/2 | .132935 |  |  | 0 | 1/2 | 8 | 5/2 | .380421 |
|  |  | 0 | 1/2 | 8 | 11/2 | .028258 |  |  | 0 | 1/2 | 8 | 9/2 | .237642 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.088455 |  |  | 0 | 1/2 | 8 | 11/2 | .068434 |
| 13/2 | 1 | 0 | 1/2 | 2 | 9/2 | -.021954 |  |  | 0 | 1/2 | 8 | 15/2 | -.157682 |
|  |  | 0 | 1/2 | 2 | 11/2 | -.092782 | 13/2 | 5 | 0 | 1/2 | 2 | 9/2 | -.471613 |
|  |  | 0 | 1/2 | 2 | 15/2 | -.032554 |  |  | 0 | 1/2 | 2 | 11/2 | -.386215 |
|  |  | 0 | 1/2 | 4 | 5/2 | .671908 |  |  | 0 | 1/2 | 2 | 15/2 | -.376234 |
|  |  | 0 | 1/2 | 4 | 9/2 | .015252 |  |  | 0 | 1/2 | 4 | 5/2 | .031847 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.317474 |  |  | 0 | 1/2 | 4 | 9/2 | .211679 |
|  |  | 0 | 1/2 | 4 | 15/2 | .409561 |  |  | 0 | 1/2 | 4 | 11/2 | .250622 |
|  |  | 0 | 1/2 | 5 | 3/2 | .255137 |  |  | 0 | 1/2 | 4 | 15/2 | -.033376 |
|  |  | 0 | 1/2 | 5 | 5/2 | .184753 |  |  | 0 | 1/2 | 5 | 3/2 | -.351364 |
|  |  | 0 | 1/2 | 5 | 9/2 | .110522 |  |  | 0 | 1/2 | 5 | 5/2 | .379702 |
|  |  | 0 | 1/2 | 5 | 11/2 | .095467 |  |  | 0 | 1/2 | 5 | 9/2 | .183133 |
|  |  | 0 | 1/2 | 5 | 15/2 | .001238 |  |  | 0 | 1/2 | 5 | 11/2 | -.040304 |
|  |  | 0 | 1/2 | 8 | 3/2 | .181494 |  |  | 0 | 1/2 | 5 | 15/2 | -.170170 |
|  |  | 0 | 1/2 | 8 | 5/2 | -.178179 |  |  | 0 | 1/2 | 8 | 3/2 | .158458 |
|  |  | 0 | 1/2 | 8 | 9/2 | .116572 |  |  | 0 | 1/2 | 8 | 5/2 | -.027759 |
|  |  | 0 | 1/2 | 8 | 11/2 | .220899 |  |  | 0 | 1/2 | 8 | 9/2 | .016105 |
|  |  | 0 | 1/2 | 8 | 15/2 | .148303 |  |  | 0 | 1/2 | 8 | 11/2 | -.007048 |
| 13/2 | 2 | 0 | 1/2 | 2 | 9/2 | .110895 |  |  | 0 | 1/2 | 8 | 15/2 | -.138497 |
|  |  | 0 | 1/2 | 2 | 11/2 | .026846 | 13/2 | 6 | 0 | 1/2 | 2 | 9/2 | .175788 |
|  |  | 0 | 1/2 | 2 | 15/2 | .146390 |  |  | 0 | 1/2 | 2 | 11/2 | .261894 |
|  |  | 0 | 1/2 | 4 | 5/2 | .236789 |  |  | 0 | 1/2 | 2 | 15/2 | -.443010 |
|  |  | 0 | 1/2 | 4 | 9/2 | .014034 |  |  | 0 | 1/2 | 4 | 5/2 | -.062615 |
|  |  | 0 | 1/2 | 4 | 11/2 | -.031886 |  |  | 0 | 1/2 | 4 | 9/2 | .017796 |
|  |  | 0 | 1/2 | 4 | 15/2 | .232531 |  |  | 0 | 1/2 | 4 | 11/2 | -.201787 |
|  |  | 0 | 1/2 | 5 | 3/2 | -.274139 |  |  | 0 | 1/2 | 4 | 15/2 | .081688 |
|  |  | 0 | 1/2 | 5 | 5/2 | -.196778 |  |  | 0 | 1/2 | 5 | 3/2 | -.041992 |
|  |  | 0 | 1/2 | 5 | 9/2 | .092395 |  |  | 0 | 1/2 | 5 | 5/2 | -.192465 |
|  |  | 0 | 1/2 | 5 | 11/2 | -.250565 |  |  | 0 | 1/2 | 5 | 9/2 | .103650 |
|  |  | 0 | 1/2 | 5 | 15/2 | .041418 |  |  | 0 | 1/2 | 5 | 11/2 | .475584 |
|  |  | 0 | 1/2 | 8 | 3/2 | .027425 |  |  | 0 | 1/2 | 5 | 15/2 | -.270288 |
|  |  | 0 | 1/2 | 8 | 5/2 | -.290818 |  |  | 0 | 1/2 | 8 | 3/2 | .171275 |
|  |  | 0 | 1/2 | 8 | 9/2 | .082612 |  |  | 0 | 1/2 | 8 | 5/2 | .071958 |
|  |  | 0 | 1/2 | 8 | 11/2 | -.604645 |  |  | 0 | 1/2 | 8 | 9/2 | -.250729 |
|  |  | 0 | 1/2 | 8 | 15/2 | -.457757 |  |  | 0 | 1/2 | 8 | 11/2 | .109278 |
| 13/2 | 3 | 0 | 1/2 | 2 | 9/2 | .287081 |  |  | 0 | 1/2 | 8 | 15/2 | -.441043 |
|  |  | 0 | 1/2 | 2 | 11/2 | -.196235 | 13/2 | 7 | 0 | 1/2 | 2 | 9/2 | .247573 |
|  |  | 0 | 1/2 | 2 | 15/2 | -.025171 |  |  | 0 | 1/2 | 2 | 11/2 | -.151175 |
|  |  | 0 | 1/2 | 4 | 5/2 | -.259678 |  |  | 0 | 1/2 | 2 | 15/2 | .015098 |
|  |  | 0 | 1/2 | 4 | 9/2 | .289341 |  |  | 0 | 1/2 | 4 | 5/2 | -.036678 |
|  |  | 0 | 1/2 | 4 | 11/2 | .198252 |  |  | 0 | 1/2 | 4 | 9/2 | -.396697 |
|  |  | 0 | 1/2 | 4 | 15/2 | .116546 |  |  | 0 | 1/2 | 4 | 11/2 | .099811 |
|  |  | 0 | 1/2 | 5 | 3/2 | .291850 |  |  | 0 | 1/2 | 4 | 15/2 | -.274020 |
|  |  | 0 | 1/2 | 5 | 5/2 | .095411 |  |  | 0 | 1/2 | 5 | 3/2 | .459008 |
|  |  | 0 | 1/2 | 5 | 9/2 | .025022 |  |  | 0 | 1/2 | 5 | 5/2 | .340466 |
|  |  | 0 | 1/2 | 5 | 11/2 | .240728 |  |  | 0 | 1/2 | 5 | 9/2 | .124924 |
|  |  | 0 | 1/2 | 5 | 15/2 | .342982 |  |  | 0 | 1/2 | 5 | 11/2 | -.282188 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha, J_\lambda J_\mu}$

$$V = 7 \qquad t = 1/2$$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13/2 | 7 | 0 | 1/2 | 5 | 15/2 | -.283071 | 15/2 | 4 | 0 | 1/2 | 4 | 9/2 | -.127959 |
| | | 0 | 1/2 | 8 | 3/2 | .118714 | | | 0 | 1/2 | 4 | 11/2 | .196993 |
| | | 0 | 1/2 | 8 | 5/2 | -.201011 | | | 0 | 1/2 | 4 | 15/2 | .160951 |
| | | 0 | 1/2 | 8 | 9/2 | -.141614 | | | 0 | 1/2 | 5 | 5/2 | .133783 |
| | | 0 | 1/2 | 8 | 11/2 | .021756 | | | 0 | 1/2 | 5 | 9/2 | -.031633 |
| | | 0 | 1/2 | 8 | 15/2 | -.308003 | | | 0 | 1/2 | 5 | 11/2 | .199701 |
| 13/2 | 8 | 0 | 1/2 | 2 | 9/2 | .407609 | | | 0 | 1/2 | 5 | 15/2 | -.224716 |
| | | 0 | 1/2 | 2 | 11/2 | -.056259 | | | 0 | 1/2 | 8 | 3/2 | -.491052 |
| | | 0 | 1/2 | 2 | 15/2 | .130007 | | | 0 | 1/2 | 8 | 5/2 | .343456 |
| | | 0 | 1/2 | 4 | 5/2 | .182228 | | | 0 | 1/2 | 8 | 9/2 | -.185577 |
| | | 0 | 1/2 | 4 | 9/2 | .194905 | | | 0 | 1/2 | 8 | 11/2 | -.307974 |
| | | 0 | 1/2 | 4 | 11/2 | -.132935 | | | 0 | 1/2 | 8 | 15/2 | .395677 |
| | | 0 | 1/2 | 4 | 15/2 | -.239374 | 15/2 | 5 | 0 | 1/2 | 2 | 11/2 | .120823 |
| | | 0 | 1/2 | 5 | 3/2 | -.310624 | | | 0 | 1/2 | 2 | 15/2 | -.083978 |
| | | 0 | 1/2 | 5 | 5/2 | .290913 | | | 0 | 1/2 | 4 | 9/2 | -.056903 |
| | | 0 | 1/2 | 5 | 9/2 | -.505727 | | | 0 | 1/2 | 4 | 11/2 | -.297764 |
| | | 0 | 1/2 | 5 | 11/2 | .027122 | | | 0 | 1/2 | 4 | 15/2 | .684330 |
| | | 0 | 1/2 | 5 | 15/2 | -.228856 | | | 0 | 1/2 | 5 | 5/2 | .121427 |
| | | 0 | 1/2 | 8 | 3/2 | .094451 | | | 0 | 1/2 | 5 | 9/2 | -.004082 |
| | | 0 | 1/2 | 8 | 5/2 | .203116 | | | 0 | 1/2 | 5 | 11/2 | -.423211 |
| | | 0 | 1/2 | 8 | 9/2 | .316740 | | | 0 | 1/2 | 5 | 15/2 | .100377 |
| | | 0 | 1/2 | 8 | 11/2 | .090568 | | | 0 | 1/2 | 8 | 3/2 | -.122706 |
| | | 0 | 1/2 | 8 | 15/2 | -.137587 | | | 0 | 1/2 | 8 | 5/2 | -.071698 |
| 15/2 | 1 | 0 | 1/2 | 2 | 11/2 | -.254245 | | | 0 | 1/2 | 8 | 9/2 | .246060 |
| | | 0 | 1/2 | 2 | 15/2 | .074569 | | | 0 | 1/2 | 8 | 11/2 | -.343950 |
| | | 0 | 1/2 | 4 | 9/2 | -.645432 | | | 0 | 1/2 | 8 | 15/2 | -.123090 |
| | | 0 | 1/2 | 4 | 11/2 | -.067136 | 15/2 | 6 | 0 | 1/2 | 2 | 11/2 | .088179 |
| | | 0 | 1/2 | 4 | 15/2 | -.095254 | | | 0 | 1/2 | 2 | 15/2 | .375034 |
| | | 0 | 1/2 | 5 | 5/2 | -.474572 | | | 0 | 1/2 | 4 | 9/2 | .080818 |
| | | 0 | 1/2 | 5 | 9/2 | -.084195 | | | 0 | 1/2 | 4 | 11/2 | -.153417 |
| | | 0 | 1/2 | 5 | 11/2 | .042793 | | | 0 | 1/2 | 4 | 15/2 | -.047582 |
| | | 0 | 1/2 | 5 | 15/2 | .417075 | | | 0 | 1/2 | 5 | 5/2 | -.452417 |
| | | 0 | 1/2 | 8 | 3/2 | -.270330 | | | 0 | 1/2 | 5 | 9/2 | .106504 |
| | | 0 | 1/2 | 8 | 5/2 | .019009 | | | 0 | 1/2 | 5 | 11/2 | -.488942 |
| | | 0 | 1/2 | 8 | 9/2 | .096449 | | | 0 | 1/2 | 5 | 15/2 | -.397237 |
| | | 0 | 1/2 | 8 | 11/2 | -.037331 | | | 0 | 1/2 | 8 | 3/2 | -.031107 |
| | | 0 | 1/2 | 8 | 15/2 | -.086080 | | | 0 | 1/2 | 8 | 5/2 | .270277 |
| 15/2 | 2 | 0 | 1/2 | 2 | 11/2 | -.404140 | | | 0 | 1/2 | 8 | 9/2 | -.136473 |
| | | 0 | 1/2 | 2 | 15/2 | -.126974 | | | 0 | 1/2 | 8 | 11/2 | .233188 |
| | | 0 | 1/2 | 4 | 9/2 | -.297187 | | | 0 | 1/2 | 8 | 15/2 | -.243592 |
| | | 0 | 1/2 | 4 | 11/2 | .318694 | 15/2 | 7 | 0 | 1/2 | 2 | 11/2 | -.454559 |
| | | 0 | 1/2 | 4 | 15/2 | .236161 | | | 0 | 1/2 | 2 | 15/2 | .300643 |
| | | 0 | 1/2 | 5 | 5/2 | .328871 | | | 0 | 1/2 | 4 | 9/2 | .032394 |
| | | 0 | 1/2 | 5 | 9/2 | .187375 | | | 0 | 1/2 | 4 | 11/2 | -.228864 |
| | | 0 | 1/2 | 5 | 11/2 | -.047411 | | | 0 | 1/2 | 4 | 15/2 | -.045584 |
| | | 0 | 1/2 | 5 | 15/2 | -.057353 | | | 0 | 1/2 | 5 | 5/2 | .142558 |
| | | 0 | 1/2 | 8 | 3/2 | .212465 | | | 0 | 1/2 | 5 | 9/2 | .666443 |
| | | 0 | 1/2 | 8 | 5/2 | .444821 | | | 0 | 1/2 | 5 | 11/2 | -.076510 |
| | | 0 | 1/2 | 8 | 9/2 | -.225253 | | | 0 | 1/2 | 5 | 15/2 | .033001 |
| | | 0 | 1/2 | 8 | 11/2 | .084603 | | | 0 | 1/2 | 8 | 3/2 | .018876 |
| | | 0 | 1/2 | 8 | 15/2 | -.353814 | | | 0 | 1/2 | 8 | 5/2 | -.163958 |
| 15/2 | 3 | 0 | 1/2 | 2 | 11/2 | .329678 | | | 0 | 1/2 | 8 | 9/2 | .165102 |
| | | 0 | 1/2 | 2 | 15/2 | -.228690 | | | 0 | 1/2 | 8 | 11/2 | .036651 |
| | | 0 | 1/2 | 4 | 9/2 | -.149654 | | | 0 | 1/2 | 8 | 15/2 | .346746 |
| | | 0 | 1/2 | 4 | 11/2 | .254635 | 17/2 | 1 | 0 | 1/2 | 2 | 15/2 | .582772 |
| | | 0 | 1/2 | 4 | 15/2 | -.196417 | | | 0 | 1/2 | 4 | 9/2 | .051104 |
| | | 0 | 1/2 | 5 | 5/2 | -.020737 | | | 0 | 1/2 | 4 | 11/2 | .172014 |
| | | 0 | 1/2 | 5 | 9/2 | .198953 | | | 0 | 1/2 | 4 | 15/2 | -.131247 |
| | | 0 | 1/2 | 5 | 11/2 | -.208016 | | | 0 | 1/2 | 5 | 9/2 | -.370252 |
| | | 0 | 1/2 | 5 | 15/2 | .020063 | | | 0 | 1/2 | 5 | 11/2 | -.089825 |
| | | 0 | 1/2 | 8 | 3/2 | .119446 | | | 0 | 1/2 | 5 | 15/2 | .361360 |
| | | 0 | 1/2 | 8 | 5/2 | .416897 | | | 0 | 1/2 | 8 | 3/2 | -.005880 |
| | | 0 | 1/2 | 8 | 9/2 | .609240 | | | 0 | 1/2 | 8 | 5/2 | .196328 |
| | | 0 | 1/2 | 8 | 11/2 | .050492 | | | 0 | 1/2 | 8 | 9/2 | -.349643 |
| | | 0 | 1/2 | 8 | 15/2 | .260230 | | | 0 | 1/2 | 8 | 11/2 | -.417492 |
| 15/2 | 4 | 0 | 1/2 | 2 | 11/2 | .138763 | | | 0 | 1/2 | 8 | 15/2 | .009263 |
| | | 0 | 1/2 | 2 | 15/2 | .381369 | 17/2 | 2 | 0 | 1/2 | 2 | 15/2 | -.026613 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$$v = 7 \quad t = 1/2$$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17/2 | 2 | 0 | 1/2 | 4 | 9/2 | -.041052 | 19/2 | 1 | 0 | 1/2 | 8 | 9/2 | -.311313 |
| | | 0 | 1/2 | 4 | 11/2 | -.457696 | | | 0 | 1/2 | 8 | 11/2 | -.227625 |
| | | 0 | 1/2 | 4 | 15/2 | -.148016 | | | 0 | 1/2 | 8 | 15/2 | -.275983 |
| | | 0 | 1/2 | 5 | 9/2 | .577057 | 19/2 | 2 | 0 | 1/2 | 2 | 15/2 | .392284 |
| | | 0 | 1/2 | 5 | 11/2 | .240657 | | | 0 | 1/2 | 4 | 11/2 | -.278268 |
| | | 0 | 1/2 | 5 | 15/2 | .292824 | | | 0 | 1/2 | 4 | 15/2 | -.133614 |
| | | 0 | 1/2 | 8 | 3/2 | .138178 | | | 0 | 1/2 | 5 | 9/2 | -.091791 |
| | | 0 | 1/2 | 8 | 5/2 | .002024 | | | 0 | 1/2 | 5 | 11/2 | .372883 |
| | | 0 | 1/2 | 8 | 9/2 | -.515095 | | | 0 | 1/2 | 5 | 15/2 | -.400475 |
| | | 0 | 1/2 | 8 | 11/2 | -.064605 | | | 0 | 1/2 | 8 | 3/2 | -.122798 |
| | | 0 | 1/2 | 8 | 15/2 | -.031017 | | | 0 | 1/2 | 8 | 5/2 | .130926 |
| 17/2 | 3 | 0 | 1/2 | 2 | 15/2 | .259064 | | | 0 | 1/2 | 8 | 9/2 | .208745 |
| | | 0 | 1/2 | 4 | 9/2 | -.695952 | | | 0 | 1/2 | 8 | 11/2 | .446283 |
| | | 0 | 1/2 | 4 | 11/2 | .316427 | | | 0 | 1/2 | 8 | 15/2 | -.409897 |
| | | 0 | 1/2 | 4 | 15/2 | .229375 | 19/2 | 3 | 0 | 1/2 | 2 | 15/2 | -.478930 |
| | | 0 | 1/2 | 5 | 9/2 | .014329 | | | 0 | 1/2 | 4 | 11/2 | .106907 |
| | | 0 | 1/2 | 5 | 11/2 | .319651 | | | 0 | 1/2 | 4 | 15/2 | -.511932 |
| | | 0 | 1/2 | 5 | 15/2 | -.084422 | | | 0 | 1/2 | 5 | 9/2 | .118814 |
| | | 0 | 1/2 | 8 | 3/2 | .135518 | | | 0 | 1/2 | 5 | 11/2 | .302815 |
| | | 0 | 1/2 | 8 | 5/2 | -.257324 | | | 0 | 1/2 | 5 | 15/2 | -.368344 |
| | | 0 | 1/2 | 8 | 9/2 | -.187859 | | | 0 | 1/2 | 8 | 3/2 | .069680 |
| | | 0 | 1/2 | 8 | 11/2 | .217622 | | | 0 | 1/2 | 8 | 5/2 | .164261 |
| | | 0 | 1/2 | 8 | 15/2 | .138047 | | | 0 | 1/2 | 8 | 9/2 | -.350860 |
| 17/2 | 4 | 0 | 1/2 | 2 | 15/2 | -.345913 | | | 0 | 1/2 | 8 | 11/2 | .161329 |
| | | 0 | 1/2 | 4 | 9/2 | -.134793 | | | 0 | 1/2 | 8 | 15/2 | .273248 |
| | | 0 | 1/2 | 4 | 11/2 | -.001065 | 19/2 | 4 | 0 | 1/2 | 2 | 15/2 | -.165473 |
| | | 0 | 1/2 | 4 | 15/2 | -.321563 | | | 0 | 1/2 | 4 | 11/2 | .367503 |
| | | 0 | 1/2 | 5 | 9/2 | -.323044 | | | 0 | 1/2 | 4 | 15/2 | -.029804 |
| | | 0 | 1/2 | 5 | 11/2 | -.018050 | | | 0 | 1/2 | 5 | 9/2 | .469811 |
| | | 0 | 1/2 | 5 | 15/2 | .374604 | | | 0 | 1/2 | 5 | 11/2 | .282704 |
| | | 0 | 1/2 | 8 | 3/2 | .643203 | | | 0 | 1/2 | 5 | 15/2 | .506060 |
| | | 0 | 1/2 | 8 | 5/2 | -.271114 | | | 0 | 1/2 | 8 | 3/2 | -.269297 |
| | | 0 | 1/2 | 8 | 9/2 | .145128 | | | 0 | 1/2 | 8 | 5/2 | -.055597 |
| | | 0 | 1/2 | 8 | 11/2 | -.043516 | | | 0 | 1/2 | 8 | 9/2 | .034875 |
| | | 0 | 1/2 | 8 | 15/2 | -.059931 | | | 0 | 1/2 | 8 | 11/2 | .286892 |
| 17/2 | 5 | 0 | 1/2 | 2 | 15/2 | -.138891 | | | 0 | 1/2 | 8 | 15/2 | -.347559 |
| | | 0 | 1/2 | 4 | 9/2 | .154197 | 19/2 | 5 | 0 | 1/2 | 2 | 15/2 | -.025290 |
| | | 0 | 1/2 | 4 | 11/2 | .330751 | | | 0 | 1/2 | 4 | 11/2 | .127445 |
| | | 0 | 1/2 | 4 | 15/2 | -.063513 | | | 0 | 1/2 | 4 | 15/2 | -.053923 |
| | | 0 | 1/2 | 5 | 9/2 | .168100 | | | 0 | 1/2 | 5 | 9/2 | -.609040 |
| | | 0 | 1/2 | 5 | 11/2 | -.591244 | | | 0 | 1/2 | 5 | 11/2 | .257047 |
| | | 0 | 1/2 | 5 | 15/2 | .101541 | | | 0 | 1/2 | 5 | 15/2 | .078087 |
| | | 0 | 1/2 | 8 | 3/2 | -.076611 | | | 0 | 1/2 | 8 | 3/2 | -.588482 |
| | | 0 | 1/2 | 8 | 5/2 | -.348225 | | | 0 | 1/2 | 8 | 5/2 | -.386618 |
| | | 0 | 1/2 | 8 | 9/2 | -.381835 | | | 0 | 1/2 | 8 | 9/2 | -.165547 |
| | | 0 | 1/2 | 8 | 11/2 | .212583 | | | 0 | 1/2 | 8 | 11/2 | -.065129 |
| | | 0 | 1/2 | 8 | 15/2 | .370466 | | | 0 | 1/2 | 8 | 15/2 | .098377 |
| 17/2 | 6 | 0 | 1/2 | 2 | 15/2 | .229186 | 19/2 | 6 | 0 | 1/2 | 2 | 15/2 | -.333971 |
| | | 0 | 1/2 | 4 | 9/2 | -.244432 | | | 0 | 1/2 | 4 | 11/2 | -.423818 |
| | | 0 | 1/2 | 4 | 11/2 | -.556995 | | | 0 | 1/2 | 4 | 15/2 | .545308 |
| | | 0 | 1/2 | 4 | 15/2 | -.397504 | | | 0 | 1/2 | 5 | 9/2 | .194346 |
| | | 0 | 1/2 | 5 | 9/2 | -.301155 | | | 0 | 1/2 | 5 | 11/2 | .479129 |
| | | 0 | 1/2 | 5 | 11/2 | -.173191 | | | 0 | 1/2 | 5 | 15/2 | -.128981 |
| | | 0 | 1/2 | 5 | 15/2 | -.117403 | | | 0 | 1/2 | 8 | 3/2 | .080638 |
| | | 0 | 1/2 | 8 | 3/2 | -.345136 | | | 0 | 1/2 | 8 | 5/2 | -.272311 |
| | | 0 | 1/2 | 8 | 5/2 | -.338919 | | | 0 | 1/2 | 8 | 9/2 | -.093988 |
| | | 0 | 1/2 | 8 | 9/2 | .009553 | | | 0 | 1/2 | 8 | 11/2 | -.187296 |
| | | 0 | 1/2 | 8 | 11/2 | .225665 | | | 0 | 1/2 | 8 | 15/2 | -.054222 |
| | | 0 | 1/2 | 8 | 15/2 | -.000369 | 21/2 | 1 | 0 | 1/2 | 4 | 15/2 | .247736 |
| 19/2 | 1 | 0 | 1/2 | 2 | 15/2 | -.150451 | | | 0 | 1/2 | 5 | 11/2 | .019641 |
| | | 0 | 1/2 | 4 | 11/2 | -.500983 | | | 0 | 1/2 | 5 | 15/2 | .346421 |
| | | 0 | 1/2 | 4 | 15/2 | -.134710 | | | 0 | 1/2 | 8 | 5/2 | -.484179 |
| | | 0 | 1/2 | 5 | 9/2 | -.073350 | | | 0 | 1/2 | 8 | 9/2 | -.307965 |
| | | 0 | 1/2 | 5 | 11/2 | -.112284 | | | 0 | 1/2 | 8 | 11/2 | .673661 |
| | | 0 | 1/2 | 5 | 15/2 | .293270 | | | 0 | 1/2 | 8 | 15/2 | .187468 |
| | | 0 | 1/2 | 8 | 3/2 | -.307785 | 21/2 | 2 | 0 | 1/2 | 4 | 15/2 | -.684579 |
| | | 0 | 1/2 | 8 | 5/2 | .533492 | | | 0 | 1/2 | 5 | 11/2 | .352775 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | $v = 7$ | $t = 1/2$ | | | | | | | |
| 21/2 | 2 | 0 | 1/2 | 5 | 15/2 | .366704 | | 23/2 | 2 | 0 | 1/2 | 5 | 15/2 | -.342196 |
| | | 0 | 1/2 | 8 | 5/2 | .280606 | | | | 0 | 1/2 | 8 | 9/2 | .666781 |
| | | 0 | 1/2 | 8 | 9/2 | .077172 | | | | 0 | 1/2 | 8 | 11/2 | .240406 |
| | | 0 | 1/2 | 8 | 11/2 | .357838 | | | | 0 | 1/2 | 8 | 15/2 | .595661 |
| | | 0 | 1/2 | 8 | 15/2 | -.244307 | | 23/2 | 3 | 0 | 1/2 | 4 | 15/2 | .721706 |
| 21/2 | 3 | 0 | 1/2 | 4 | 15/2 | .136853 | | | | 0 | 1/2 | 5 | 15/2 | -.270982 |
| | | 0 | 1/2 | 5 | 11/2 | .309234 | | | | 0 | 1/2 | 8 | 9/2 | .115729 |
| | | 0 | 1/2 | 5 | 15/2 | .426893 | | | | 0 | 1/2 | 8 | 11/2 | .543955 |
| | | 0 | 1/2 | 8 | 5/2 | -.529152 | | | | 0 | 1/2 | 8 | 15/2 | -.310532 |
| | | 0 | 1/2 | 8 | 9/2 | .420208 | | 25/2 | 1 | 0 | 1/2 | 5 | 15/2 | .494594 |
| | | 0 | 1/2 | 8 | 11/2 | -.377060 | | | | 0 | 1/2 | 8 | 9/2 | -.792532 |
| | | 0 | 1/2 | 8 | 15/2 | -.323507 | | | | 0 | 1/2 | 8 | 11/2 | -.147211 |
| 21/2 | 4 | 0 | 1/2 | 4 | 15/2 | .044935 | | | | 0 | 1/2 | 8 | 15/2 | .324959 |
| | | 0 | 1/2 | 5 | 11/2 | -.679095 | | 25/2 | 2 | 0 | 1/2 | 5 | 15/2 | -.354897 |
| | | 0 | 1/2 | 5 | 15/2 | .137088 | | | | 0 | 1/2 | 8 | 9/2 | .185618 |
| | | 0 | 1/2 | 8 | 5/2 | .082635 | | | | 0 | 1/2 | 8 | 11/2 | -.507314 |
| | | 0 | 1/2 | 8 | 9/2 | .624309 | | | | 0 | 1/2 | 8 | 15/2 | .763037 |
| | | 0 | 1/2 | 8 | 11/2 | .317522 | | 25/2 | 3 | 0 | 1/2 | 5 | 15/2 | -.610149 |
| | | 0 | 1/2 | 8 | 15/2 | -.143552 | | | | 0 | 1/2 | 8 | 9/2 | -.401516 |
| 23/2 | 1 | 0 | 1/2 | 4 | 15/2 | -.381774 | | | | 0 | 1/2 | 8 | 11/2 | .639744 |
| | | 0 | 1/2 | 5 | 15/2 | -.693469 | | | | 0 | 1/2 | 8 | 15/2 | .239228 |
| | | 0 | 1/2 | 8 | 9/2 | .127027 | | 27/2 | 1 | 0 | 1/2 | 8 | 11/2 | .910259 |
| | | 0 | 1/2 | 8 | 11/2 | -.189549 | | | | 0 | 1/2 | 8 | 15/2 | .414039 |
| | | 0 | 1/2 | 8 | 15/2 | -.566820 | | 29/2 | 1 | 0 | 1/2 | 8 | 15/2 | -1.00000 |
| 23/2 | 2 | 0 | 1/2 | 4 | 15/2 | -.160305 | | 31/2 | 1 | 0 | 1/2 | 8 | 15/2 | 1.00000 |
| | | | | | | $v = 8$ | $t = 0$ | | | | | | | |
| 0 | 1 | 0 | 0 | 2 | 2 | .535736 | | 3 | 2 | 0 | 0 | 4 | 5 | .024980 |
| | | 0 | 0 | 4 | 4 | .202729 | | | | 0 | 0 | 5 | 5 | .000000 |
| | | 0 | 0 | 5 | 5 | -.794625 | | | | 0 | 0 | 5 | 8 | -.317696 |
| | | 0 | 0 | 8 | 8 | .201146 | | | | 0 | 0 | 8 | 8 | .000000 |
| 1 | 1 | 0 | 0 | 2 | 2 | .000000 | | 4 | 1 | 0 | 0 | 2 | 2 | -.141607 |
| | | 0 | 0 | 4 | 4 | .000000 | | | | 0 | 0 | 2 | 4 | -.006822 |
| | | 0 | 0 | 4 | 5 | -1.00000 | | | | 0 | 0 | 2 | 5 | -.078909 |
| | | 0 | 0 | 5 | 5 | .000000 | | | | 0 | 0 | 4 | 4 | .002238 |
| | | 0 | 0 | 8 | 8 | .000000 | | | | 0 | 0 | 4 | 5 | .278773 |
| 2 | 1 | 0 | 0 | 2 | 2 | .041542 | | | | 0 | 0 | 4 | 8 | .467328 |
| | | 0 | 0 | 2 | 4 | -.594380 | | | | 0 | 0 | 5 | 5 | -.341397 |
| | | 0 | 0 | 4 | 4 | -.209116 | | | | 0 | 0 | 5 | 8 | -.333184 |
| | | 0 | 0 | 4 | 5 | -.208986 | | | | 0 | 0 | 8 | 8 | -.670818 |
| | | 0 | 0 | 5 | 5 | -.695664 | | 4 | 2 | 0 | 0 | 2 | 2 | -.221939 |
| | | 0 | 0 | 8 | 8 | .271356 | | | | 0 | 0 | 2 | 4 | .159157 |
| 2 | 2 | 0 | 0 | 2 | 2 | -.396278 | | | | 0 | 0 | 2 | 5 | .105071 |
| | | 0 | 0 | 2 | 4 | -.424863 | | | | 0 | 0 | 4 | 4 | -.616816 |
| | | 0 | 0 | 4 | 4 | .792439 | | | | 0 | 0 | 4 | 5 | .539996 |
| | | 0 | 0 | 4 | 5 | .116405 | | | | 0 | 0 | 4 | 8 | -.311261 |
| | | 0 | 0 | 5 | 5 | .009844 | | | | 0 | 0 | 5 | 5 | .136500 |
| | | 0 | 0 | 8 | 8 | -.144390 | | | | 0 | 0 | 5 | 8 | .305556 |
| 2 | 3 | 0 | 0 | 2 | 2 | .843756 | | | | 0 | 0 | 8 | 8 | -.182852 |
| | | 0 | 0 | 2 | 4 | .060156 | | 4 | 3 | 0 | 0 | 2 | 2 | -.258096 |
| | | 0 | 0 | 4 | 4 | .411143 | | | | 0 | 0 | 2 | 4 | .080317 |
| | | 0 | 0 | 4 | 5 | .255815 | | | | 0 | 0 | 2 | 5 | .674528 |
| | | 0 | 0 | 5 | 5 | -.218987 | | | | 0 | 0 | 4 | 4 | .044838 |
| | | 0 | 0 | 8 | 8 | -.044955 | | | | 0 | 0 | 4 | 5 | .074705 |
| 3 | 1 | 0 | 0 | 2 | 2 | .000000 | | | | 0 | 0 | 4 | 8 | .378605 |
| | | 0 | 0 | 2 | 4 | -.616200 | | | | 0 | 0 | 5 | 5 | -.379047 |
| | | 0 | 0 | 2 | 5 | .240380 | | | | 0 | 0 | 5 | 8 | .253484 |
| | | 0 | 0 | 4 | 4 | .000000 | | | | 0 | 0 | 8 | 8 | .336278 |
| | | 0 | 0 | 4 | 5 | -.651371 | | 4 | 4 | 0 | 0 | 2 | 2 | .667221 |
| | | 0 | 0 | 5 | 5 | .000000 | | | | 0 | 0 | 2 | 4 | .141671 |
| | | 0 | 0 | 5 | 8 | -.371793 | | | | 0 | 0 | 2 | 5 | -.296252 |
| | | 0 | 0 | 8 | 8 | .000000 | | | | 0 | 0 | 4 | 4 | .048428 |
| 3 | 2 | 0 | 0 | 2 | 2 | .000000 | | | | 0 | 0 | 4 | 5 | .325369 |
| | | 0 | 0 | 2 | 4 | .483353 | | | | 0 | 0 | 4 | 8 | .253563 |
| | | 0 | 0 | 2 | 5 | .815362 | | | | 0 | 0 | 5 | 5 | -.235974 |
| | | 0 | 0 | 4 | 4 | .000000 | | | | 0 | 0 | 5 | 8 | .457489 |

See page 321 for Explanation of Tables

TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$v = 8$    $t = 0$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 4 | 0 | 0 | 8 | 8 | .097447 | 6 | 4 | 0 | 0 | 5 | 5 | -.109076 |
| 4 | 5 | 0 | 0 | 2 | 2 | .271225 |   |   | 0 | 0 | 5 | 8 | -.072543 |
|   |   | 0 | 0 | 2 | 4 | -.705802 |   |   | 0 | 0 | 8 | 8 | -.031271 |
|   |   | 0 | 0 | 2 | 5 | .133473 | 6 | 5 | 0 | 0 | 2 | 4 | -.266690 |
|   |   | 0 | 0 | 4 | 4 | -.302008 |   |   | 0 | 0 | 2 | 5 | -.161416 |
|   |   | 0 | 0 | 4 | 5 | .031670 |   |   | 0 | 0 | 2 | 8 | .484315 |
|   |   | 0 | 0 | 4 | 8 | -.274200 |   |   | 0 | 0 | 4 | 4 | -.502578 |
|   |   | 0 | 0 | 5 | 5 | -.453272 |   |   | 0 | 0 | 4 | 5 | .025935 |
|   |   | 0 | 0 | 5 | 8 | -.178896 |   |   | 0 | 0 | 4 | 8 | .042095 |
|   |   | 0 | 0 | 8 | 8 | .074890 |   |   | 0 | 0 | 5 | 5 | .387711 |
| 5 | 1 | 0 | 0 | 2 | 4 | .159481 |   |   | 0 | 0 | 5 | 8 | .308995 |
|   |   | 0 | 0 | 2 | 5 | -.025212 |   |   | 0 | 0 | 8 | 8 | -.409187 |
|   |   | 0 | 0 | 4 | 4 | .000000 | 7 | 1 | 0 | 0 | 2 | 5 | -.030638 |
|   |   | 0 | 0 | 4 | 5 | -.807820 |   |   | 0 | 0 | 2 | 8 | -.597385 |
|   |   | 0 | 0 | 4 | 8 | .325011 |   |   | 0 | 0 | 4 | 4 | .000000 |
|   |   | 0 | 0 | 5 | 5 | .000000 |   |   | 0 | 0 | 4 | 5 | .440820 |
|   |   | 0 | 0 | 5 | 8 | .464461 |   |   | 0 | 0 | 4 | 8 | .171302 |
|   |   | 0 | 0 | 8 | 8 | .000000 |   |   | 0 | 0 | 5 | 5 | .000000 |
| 5 | 2 | 0 | 0 | 2 | 4 | -.813249 |   |   | 0 | 0 | 5 | 8 | .646936 |
|   |   | 0 | 0 | 2 | 5 | .281519 |   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 0 | 0 | 4 | 4 | .000000 | 7 | 2 | 0 | 0 | 2 | 5 | -.222667 |
|   |   | 0 | 0 | 4 | 5 | .164905 |   |   | 0 | 0 | 2 | 8 | .152561 |
|   |   | 0 | 0 | 4 | 8 | .213366 |   |   | 0 | 0 | 4 | 4 | .000000 |
|   |   | 0 | 0 | 5 | 5 | .000000 |   |   | 0 | 0 | 4 | 5 | .488456 |
|   |   | 0 | 0 | 5 | 8 | .432035 |   |   | 0 | 0 | 4 | 8 | .729460 |
|   |   | 0 | 0 | 8 | 8 | .000000 |   |   | 0 | 0 | 5 | 5 | .000000 |
| 5 | 3 | 0 | 0 | 2 | 4 | .053743 |   |   | 0 | 0 | 5 | 8 | -.395639 |
|   |   | 0 | 0 | 2 | 5 | -.807502 |   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 0 | 0 | 4 | 4 | .000000 | 7 | 3 | 0 | 0 | 2 | 5 | -.895018 |
|   |   | 0 | 0 | 4 | 5 | .328296 |   |   | 0 | 0 | 2 | 8 | .257129 |
|   |   | 0 | 0 | 4 | 8 | .032408 |   |   | 0 | 0 | 4 | 4 | .000000 |
|   |   | 0 | 0 | 5 | 5 | .000000 |   |   | 0 | 0 | 4 | 5 | .102061 |
|   |   | 0 | 0 | 5 | 8 | .486028 |   |   | 0 | 0 | 4 | 8 | -.286176 |
|   |   | 0 | 0 | 8 | 8 | .000000 |   |   | 0 | 0 | 5 | 5 | .000000 |
| 6 | 1 | 0 | 0 | 2 | 4 | .177941 |   |   | 0 | 0 | 5 | 8 | .201281 |
|   |   | 0 | 0 | 2 | 5 | .388483 |   |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 0 | 0 | 2 | 8 | .129671 | 8 | 1 | 0 | 0 | 2 | 8 | -.329710 |
|   |   | 0 | 0 | 4 | 4 | .496940 |   |   | 0 | 0 | 4 | 4 | .704658 |
|   |   | 0 | 0 | 4 | 5 | .505311 |   |   | 0 | 0 | 4 | 5 | -.429876 |
|   |   | 0 | 0 | 4 | 8 | .162114 |   |   | 0 | 0 | 4 | 8 | -.338008 |
|   |   | 0 | 0 | 5 | 5 | .478998 |   |   | 0 | 0 | 5 | 5 | -.276692 |
|   |   | 0 | 0 | 5 | 8 | .190325 |   |   | 0 | 0 | 5 | 8 | .102499 |
|   |   | 0 | 0 | 8 | 8 | -.079821 |   |   | 0 | 0 | 8 | 8 | .092959 |
| 6 | 2 | 0 | 0 | 2 | 4 | -.643902 | 8 | 2 | 0 | 0 | 2 | 8 | .364862 |
|   |   | 0 | 0 | 2 | 5 | .205301 |   |   | 0 | 0 | 4 | 4 | -.097920 |
|   |   | 0 | 0 | 2 | 8 | -.394798 |   |   | 0 | 0 | 4 | 5 | -.325084 |
|   |   | 0 | 0 | 4 | 4 | -.023845 |   |   | 0 | 0 | 4 | 8 | .070452 |
|   |   | 0 | 0 | 4 | 5 | .240777 |   |   | 0 | 0 | 5 | 5 | -.233187 |
|   |   | 0 | 0 | 4 | 8 | .371447 |   |   | 0 | 0 | 5 | 8 | .604648 |
|   |   | 0 | 0 | 5 | 5 | -.308618 |   |   | 0 | 0 | 8 | 8 | -.571550 |
|   |   | 0 | 0 | 5 | 8 | .283030 | 8 | 3 | 0 | 0 | 2 | 8 | -.492320 |
|   |   | 0 | 0 | 8 | 8 | -.124538 |   |   | 0 | 0 | 4 | 4 | -.350446 |
| 6 | 3 | 0 | 0 | 2 | 4 | -.260378 |   |   | 0 | 0 | 4 | 5 | -.323234 |
|   |   | 0 | 0 | 2 | 5 | -.439995 |   |   | 0 | 0 | 4 | 8 | .518318 |
|   |   | 0 | 0 | 2 | 8 | .099523 |   |   | 0 | 0 | 5 | 5 | -.486213 |
|   |   | 0 | 0 | 4 | 4 | .092042 |   |   | 0 | 0 | 5 | 8 | -.156842 |
|   |   | 0 | 0 | 4 | 5 | .587310 |   |   | 0 | 0 | 8 | 8 | .025941 |
|   |   | 0 | 0 | 4 | 8 | -.517085 | 8 | 4 | 0 | 0 | 2 | 8 | -.064029 |
|   |   | 0 | 0 | 5 | 5 | -.095386 |   |   | 0 | 0 | 4 | 4 | -.254343 |
|   |   | 0 | 0 | 5 | 8 | .081895 |   |   | 0 | 0 | 4 | 5 | -.699350 |
|   |   | 0 | 0 | 8 | 8 | .303508 |   |   | 0 | 0 | 4 | 8 | -.160183 |
| 6 | 4 | 0 | 0 | 2 | 4 | -.287551 |   |   | 0 | 0 | 5 | 5 | .604819 |
|   |   | 0 | 0 | 2 | 5 | -.398571 |   |   | 0 | 0 | 5 | 8 | -.207970 |
|   |   | 0 | 0 | 2 | 8 | .425003 |   |   | 0 | 0 | 8 | 8 | -.086045 |
|   |   | 0 | 0 | 4 | 4 | .601551 | 9 | 1 | 0 | 0 | 2 | 8 | -.278461 |
|   |   | 0 | 0 | 4 | 5 | -.278457 |   |   | 0 | 0 | 4 | 5 | -.355696 |
|   |   | 0 | 0 | 4 | 8 | .346826 |   |   | 0 | 0 | 4 | 8 | -.729167 |

See page 321 for Explanation of Tables

## TABLE II. The Transformation Coefficients $D^{T_\lambda T_\mu J}_{(vt)\alpha;J_\lambda J_\mu}$

$$V = 8 \quad t = 0$$

| J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D | J | α | $T_\lambda$ | $T_\mu$ | $J_\lambda$ | $J_\mu$ | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 1 | 0 | 0 | 2 | 8 | -.278461 | 10 | 2 | 0 | 0 | 5 | 5 | -.392999 |
|   |   | 0 | 0 | 4 | 5 | -.355696 |    |   | 0 | 0 | 5 | 8 | -.713033 |
|   |   | 0 | 0 | 4 | 8 | -.729167 |    |   | 0 | 0 | 8 | 8 | -.124413 |
|   |   | 0 | 0 | 5 | 5 | .000000 | 10 | 3 | 0 | 0 | 2 | 8 | .743018 |
|   |   | 0 | 0 | 5 | 8 | -.514058 |    |   | 0 | 0 | 4 | 8 | -.045021 |
|   |   | 0 | 0 | 8 | 8 | .000000 |    |   | 0 | 0 | 5 | 5 | .627348 |
| 9 | 2 | 0 | 0 | 2 | 8 | .233728 |    |   | 0 | 0 | 5 | 8 | -.191249 |
|   |   | 0 | 0 | 4 | 5 | .783505 |    |   | 0 | 0 | 8 | 8 | .125521 |
|   |   | 0 | 0 | 4 | 8 | -.561432 | 11 | 1 | 0 | 0 | 4 | 8 | .968109 |
|   |   | 0 | 0 | 5 | 5 | .000000 |    |   | 0 | 0 | 5 | 8 | .250528 |
|   |   | 0 | 0 | 5 | 8 | .127619 |    |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 0 | 0 | 8 | 8 | .000000 | 11 | 2 | 0 | 0 | 4 | 8 | .250528 |
| 9 | 3 | 0 | 0 | 2 | 8 | -.868070 |    |   | 0 | 0 | 5 | 8 | -.968109 |
|   |   | 0 | 0 | 4 | 5 | .133576 |    |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 0 | 0 | 4 | 8 | -.067372 | 12 | 1 | 0 | 0 | 4 | 8 | -.792293 |
|   |   | 0 | 0 | 5 | 5 | .000000 |    |   | 0 | 0 | 5 | 8 | -.607095 |
|   |   | 0 | 0 | 5 | 8 | .473364 |    |   | 0 | 0 | 8 | 8 | .060885 |
|   |   | 0 | 0 | 8 | 8 | .000000 | 12 | 2 | 0 | 0 | 4 | 8 | .492992 |
| 10 | 1 | 0 | 0 | 2 | 8 | .276793 |    |   | 0 | 0 | 5 | 8 | -.578180 |
|   |   | 0 | 0 | 4 | 8 | .035841 |    |   | 0 | 0 | 8 | 8 | .650128 |
|   |   | 0 | 0 | 5 | 5 | -.432066 | 13 | 1 | 0 | 0 | 5 | 8 | -1.00000 |
|   |   | 0 | 0 | 5 | 8 | .197367 |    |   | 0 | 0 | 8 | 8 | .000000 |
|   |   | 0 | 0 | 8 | 8 | .834546 | 14 | 1 | 0 | 0 | 8 | 8 | 1.00000 |
| 10 | 2 | 0 | 0 | 2 | 8 | .201429 | 16 | 1 | 0 | 0 | 8 | 8 | 1.00000 |
|   |   | 0 | 0 | 4 | 8 | .530174 |    |   |   |   |   |   |    |

See page 321 for Explanation of Tables

TABLE III. The Primed Reduced Matrix Elements $\langle J'_\lambda T'_\lambda \| \Lambda \| J_\lambda T_\lambda \rangle'$

$$\langle a'b' \| \Lambda \| ab \rangle' = \langle ab \| \Lambda \| a'b' \rangle' = \langle a'b' \| M \| ab \rangle' = \langle ab \| M \| a'b' \rangle'$$

| (JT) \ (J'T') | $(02)$ |
|---|---|
| $(\frac{7}{2}\ \frac{3}{2})$ | $-2\sqrt{10}$ |

| (JT) \ (J'T') | $(\frac{7}{2}\ \frac{3}{2})$ |
|---|---|
| $(21)$ | $-2\sqrt{2\cdot5}$ |
| $(41)$ | $-2\sqrt{2\cdot9}$ |
| $(61)$ | $-2\sqrt{2\cdot13}$ |

| (JT) \ (J'T') | $(21)$ | $(41)$ | $(61)$ |
|---|---|---|---|
| $(\frac{3}{2}\ \frac{1}{2})$ | $+3\sqrt{\frac{6}{7}}$ | $-3\sqrt{\frac{22}{7}}$ | $0$ |
| $(\frac{5}{2}\ \frac{1}{2})$ | $-\sqrt{33}$ | $-6\sqrt{\frac{1}{11}}$ | $+\sqrt{\frac{15\cdot13}{11}}$ |
| $(\frac{9}{2}\ \frac{1}{2})$ | $-\sqrt{\frac{65}{7}}$ | $+30\sqrt{\frac{5}{77}}$ | $-7\sqrt{\frac{5}{11}}$ |
| $(\frac{11}{2}\ \frac{1}{2})$ | $-\sqrt{30}$ | $+3\sqrt{\frac{26}{11}}$ | $+4\sqrt{\frac{39}{11}}$ |
| $(\frac{15}{2}\ \frac{1}{2})$ | $0$ | $6\sqrt{\frac{10}{11}}$ | $-6\sqrt{\frac{34}{11}}$ |

| (JT) \ (J'T') | $(\frac{3}{2}\ \frac{1}{2})$ | $(\frac{5}{2}\ \frac{1}{2})$ | $(\frac{9}{2}\ \frac{1}{2})$ | $(\frac{11}{2}\ \frac{1}{2})$ | $(\frac{15}{2}\ \frac{1}{2})$ |
|---|---|---|---|---|---|
| $(20)$ | $-2\sqrt{\frac{22}{7}}$ | $-1$ | $-3\sqrt{\frac{15\cdot13}{77}}$ | $+2\sqrt{\frac{10}{11}}$ | $0$ |
| $(40)$ | $+\sqrt{\frac{78}{35}}$ | $+2\sqrt{\frac{39}{5}}$ | $+6\sqrt{\frac{3}{91}}$ | $+\sqrt{30}$ | $-4\sqrt{\frac{6}{13}}$ |
| $(50)$ | $-\sqrt{\frac{66}{5}}$ | $+7\sqrt{\frac{1}{5}}$ | $+3\sqrt{3}$ | $-\sqrt{\frac{130}{7}}$ | $-2\sqrt{\frac{34}{7}}$ |
| $(80)$ | $0$ | $0$ | $+4\sqrt{\frac{10\cdot17}{11\cdot13}}$ | $+12\sqrt{\frac{17}{77}}$ | $+2\sqrt{\frac{6\cdot17\cdot19}{7\cdot13}}$ |

See page 321 for Explanation of Tables

TABLE IV. The Reduced Matrix Elements $\langle J'_\mu T'_\mu \|[M \times M]^{J_0 T_0}\| J_\mu T_\mu \rangle$

$J'_\mu T'_\mu(\text{text}) \equiv \text{JL TL (table)}; \quad J_\mu T_\mu(\text{text}) \equiv \text{JR TR(table)}$

| JL | TL | JR | TR | J0T0 | | J0T0 | |
|---|---|---|---|---|---|---|---|
| 2 | 0 | 2 | 0 | 1 0 | 1.195229 | 0 1 | 0.0 |
|   |   |   |   | 3 0 | 4.993502 | 2 1 | 0.0 |
| 2 | 0 | 4 | 0 | 3 0 | -2.725541 | 2 1 | 0.0 |
|   |   |   |   | 5 0 | -2.138090 | 4 1 | 0.0 |
| 2 | 0 | 5 | 0 | 3 0 | 4.512609 | 2 1 | 0.0 |
|   |   |   |   | 5 0 | -3.741657 | 4 1 | 0.0 |
|   |   |   |   | 7 0 | -4.558423 | 6 1 | 0.0 |
| 2 | 0 | 8 | 0 | 7 0 | -5.147184 | 6 1 | 0.0 |
| 2 | 0 | 2 | 1 | 1 0 | 0.0 | 0 1 | 0.000000 |
|   |   |   |   | 3 0 | 0.0 | 2 1 | -4.494895 |
|   |   |   |   | 5 0 | 0.0 | 4 1 | -3.129843 |
| 2 | 0 | 4 | 1 | 3 0 | 0.0 | 2 1 | -3.129843 |
|   |   |   |   | 5 0 | 0.0 | 4 1 | 8.886192 |
|   |   |   |   | 7 0 | 0.0 | 6 1 | 5.077905 |
| 2 | 0 | 6 | 1 | 5 0 | 0.0 | 4 1 | 5.077905 |
|   |   |   |   | 7 0 | 0.0 | 6 1 | -3.109569 |
| 4 | 0 | 4 | 0 | 1 0 | 2.927700 | 0 1 | 0.0 |
|   |   |   |   | 3 0 | -0.414039 | 2 1 | 0.0 |
|   |   |   |   | 5 0 | -7.348814 | 4 1 | 0.0 |
|   |   |   |   | 7 0 | 4.718840 | 6 1 | 0.0 |
| 4 | 0 | 5 | 0 | 1 0 | -0.000000 | 0 1 | 0.0 |
|   |   |   |   | 3 0 | -4.732864 | 2 1 | 0.0 |
|   |   |   |   | 5 0 | 3.441824 | 4 1 | 0.0 |
|   |   |   |   | 7 0 | 4.920466 | 6 1 | 0.0 |
| 4 | 0 | 8 | 0 | 5 0 | 7.120269 | 4 1 | 0.0 |
|   |   |   |   | 7 0 | -3.135163 | 6 1 | 0.0 |
| 4 | 0 | 2 | 1 | 3 0 | 0.0 | 2 1 | -6.308401 |
|   |   |   |   | 5 0 | 0.0 | 4 1 | -6.180945 |
|   |   |   |   | 7 0 | 0.0 | 6 1 | 6.928203 |
| 4 | 0 | 4 | 1 | 1 0 | 0.0 | 0 1 | -0.000000 |
|   |   |   |   | 3 0 | 0.0 | 2 1 | -6.180945 |
|   |   |   |   | 5 0 | 0.0 | 4 1 | 3.538812 |
|   |   |   |   | 7 0 | 0.0 | 6 1 | 1.809068 |
| 4 | 0 | 6 | 1 | 3 0 | 0.0 | 2 1 | 6.928203 |
|   |   |   |   | 5 0 | 0.0 | 4 1 | 1.809068 |
|   |   |   |   | 7 0 | 0.0 | 6 1 | 9.629500 |
| 5 | 0 | 5 | 0 | 1 0 | 3.964125 | 0 1 | 0.0 |
|   |   |   |   | 3 0 | 0.861892 | 2 1 | 0.0 |
|   |   |   |   | 5 0 | 5.014265 | 4 1 | 0.0 |
|   |   |   |   | 7 0 | -2.607681 | 6 1 | 0.0 |
| 5 | 0 | 8 | 0 | 3 0 | 5.147184 | 2 1 | 0.0 |
|   |   |   |   | 5 0 | -4.614835 | 4 1 | 0.0 |
|   |   |   |   | 7 0 | -7.362730 | 6 1 | 0.0 |
| 5 | 0 | 2 | 1 | 5 0 | 0.0 | 4 1 | -6.480741 |
|   |   |   |   | 7 0 | 0.0 | 6 1 | -5.781745 |
| 5 | 0 | 4 | 1 | 3 0 | 0.0 | 2 1 | 6.480741 |
|   |   |   |   | 7 0 | 0.0 | 6 1 | 11.071198 |
| 5 | 0 | 6 | 1 | 3 0 | 0.0 | 2 1 | 5.781745 |
|   |   |   |   | 5 0 | 0.0 | 4 1 | -11.071198 |
|   |   |   |   | 7 0 | 0.0 | 6 1 | 0.000000 |
| 8 | 0 | 8 | 0 | 1 0 | 7.634508 | 0 1 | 0.0 |
|   |   |   |   | 3 0 | -4.096245 | 2 1 | 0.0 |
|   |   |   |   | 5 0 | 4.901739 | 4 1 | 0.0 |
|   |   |   |   | 7 0 | -10.949294 | 6 1 | 0.0 |
| 8 | 0 | 2 | 1 | 7 0 | 0.0 | 6 1 | -6.969321 |
| 8 | 0 | 4 | 1 | 5 0 | 0.0 | 4 1 | 9.408103 |
|   |   |   |   | 7 0 | 0.0 | 6 1 | 9.075832 |
| 8 | 0 | 6 | 1 | 3 0 | 0.0 | 2 1 | -6.969321 |
|   |   |   |   | 5 0 | 0.0 | 4 1 | 9.075832 |
|   |   |   |   | 7 0 | 0.0 | 6 1 | -16.174155 |
| 2 | 1 | 2 | 1 | 1 0 | 2.070197 | 0 1 | 5.477226 |
|   |   |   |   | 3 0 | -3.964125 | 2 1 | 5.111013 |
|   |   |   |   | 5 0 | 0.0 | 4 1 | -7.340133 |
| 2 | 1 | 4 | 1 | 3 0 | 5.855400 | 2 1 | -7.340133 |
|   |   |   |   | 5 0 | -7.464200 | 4 1 | 0.817254 |
|   |   |   |   | 7 0 | 0.0 | 6 1 | -5.954372 |
| 2 | 1 | 6 | 1 | 5 0 | 8.366600 | 4 1 | -5.954372 |
|   |   |   |   | 7 0 | -7.745967 | 6 1 | -9.723449 |
| 2 | 1 | 0 | 2 | 3 0 | 0.0 | 2 1 | 7.071068 |
| 4 | 1 | 4 | 1 | 1 0 | 5.070926 | 0 1 | 7.348469 |
|   |   |   |   | 3 0 | -6.193457 | 2 1 | 0.817254 |
|   |   |   |   | 5 0 | 2.735054 | 4 1 | 7.785972 |
|   |   |   |   | 7 0 | -6.037076 | 6 1 | -12.438277 |
| 4 | 1 | 6 | 1 | 3 0 | 7.948179 | 2 1 | -5.954372 |
|   |   |   |   | 5 0 | 4.369314 | 4 1 | -12.438277 |
|   |   |   |   | 7 0 | -12.318098 | 6 1 | 6.620779 |
| 4 | 1 | 0 | 2 | 5 0 | 0.0 | 4 1 | 9.486833 |
| 6 | 1 | 6 | 1 | 1 0 | 8.831761 | 0 1 | 8.831761 |
|   |   |   |   | 3 0 | 1.734435 | 2 1 | -9.723449 |
|   |   |   |   | 5 0 | -9.945305 | 4 1 | 6.620779 |
|   |   |   |   | 7 0 | -8.948891 | 6 1 | 16.661928 |
| 6 | 1 | 0 | 2 | 7 0 | 0.0 | 6 1 | 11.401754 |
| 0 | 2 | 0 | 2 | 1 0 | 0.0 | 0 1 | 5.477226 |

| JL | TL | JR | TR | J0T0 | | J0T0 | |
|---|---|---|---|---|---|---|---|
| 3/2 | 1/2 | 3/2 | 1/2 | 1 0 | 1.195229 | 0 1 | 2.449490 |
|     |     |     |     | 3 0 | 4.119639 | 2 1 | 5.019960 |
| 3/2 | 1/2 | 5/2 | 1/2 | 1 0 | 0.000000 | 0 1 | 0.0 |
|     |     |     |     | 3 0 | 4.427189 | 2 1 | -3.884033 |
|     |     |     |     | 5 0 | 0.0 | 4 1 | -2.777460 |
| 3/2 | 1/2 | 9/2 | 1/2 | 3 0 | 5.781745 | 2 1 | 0.0 |
|     |     |     |     | 5 0 | -4.535574 | 4 1 | -7.045308 |
|     |     |     |     | 7 0 | 0.0 | 6 1 | -7.236272 |
| 3/2 | 1/2 | 11/2 | 1/2 | 5 0 | -3.741657 | 4 1 | 5.862051 |
|     |     |     |     | 7 0 | -4.810702 | 6 1 | -2.250541 |
| 3/2 | 1/2 | 15/2 | 1/2 | 7 0 | -6.233550 | 6 1 | 4.535574 |
| 3/2 | 1/2 | 7/2 | 3/2 | 3 0 | 0.0 | 2 1 | 4.535574 |
|     |     |     |     | 5 0 | 0.0 | 4 1 | -8.684962 |
| 5/2 | 1/2 | 5/2 | 1/2 | 1 0 | 2.236068 | 0 1 | 3.000000 |
|     |     |     |     | 3 0 | -1.310794 | 2 1 | -7.120393 |
|     |     |     |     | 5 0 | -6.657190 | 4 1 | 6.277666 |
| 5/2 | 1/2 | 9/2 | 1/2 | 3 0 | 2.810106 | 2 1 | 4.818121 |
|     |     |     |     | 5 0 | 5.018497 | 4 1 | -2.579435 |
|     |     |     |     | 7 0 | -2.647433 | 6 1 | 0.636364 |
| 5/2 | 1/2 | 11/2 | 1/2 | 3 0 | -3.485507 | 2 1 | 0.0 |
|     |     |     |     | 5 0 | -5.526794 | 4 1 | -5.620211 |
|     |     |     |     | 7 0 | -6.181818 | 6 1 | 10.155811 |
| 5/2 | 1/2 | 15/2 | 1/2 | 5 0 | 6.996503 | 4 1 | 0.0 |
|     |     |     |     | 7 0 | 3.378252 | 6 1 | 6.090231 |
| 5/2 | 1/2 | 7/2 | 3/2 | 3 0 | 0.0 | 2 1 | -9.380832 |
|     |     |     |     | 5 0 | 0.0 | 4 1 | -2.954196 |
|     |     |     |     | 7 0 | 0.0 | 6 1 | 6.875517 |
| 9/2 | 1/2 | 9/2 | 1/2 | 1 0 | 4.855042- | 0 1 | 3.872983 |
|     |     |     |     | 3 0 | -4.234118 | 2 1 | 3.641095 |
|     |     |     |     | 5 0 | 0.512841 | 4 1 | 3.105734 |
|     |     |     |     | 7 0 | -7.738292 | 6 1 | -10.817898 |
| 9/2 | 1/2 | 11/2 | 1/2 | 1 0 | -0.000000 | 0 1 | 0.0 |
|     |     |     |     | 3 0 | -6.586989 | 2 1 | 7.135061 |
|     |     |     |     | 5 0 | 4.847319 | 4 1 | 1.317398 |
|     |     |     |     | 7 0 | -5.271659 | 6 1 | 7.168078 |
| 9/2 | 1/2 | 15/2 | 1/2 | 3 0 | -5.846087 | 2 1 | 0.0 |
|     |     |     |     | 5 0 | -2.771561 | 4 1 | 12.052017 |
|     |     |     |     | 7 0 | -9.366543 | 6 1 | 1.876197 |
| 9/2 | 1/2 | 7/2 | 3/2 | 3 0 | 0.0 | 2 1 | -4.976134 |
|     |     |     |     | 5 0 | 0.0 | 4 1 | 12.483756 |
|     |     |     |     | 7 0 | 0.0 | 6 1 | -7.706746 |
| 11/2 | 1/2 | 11/2 | 1/2 | 1 0 | 6.391959 | 0 1 | 4.242641 |
|     |     |     |     | 3 0 | 0.303463 | 2 1 | -0.850625 |
|     |     |     |     | 5 0 | 4.883048 | 4 1 | -9.894672 |
|     |     |     |     | 7 0 | 7.306739 | 6 1 | 4.681598 |
| 11/2 | 1/2 | 15/2 | 1/2 | 3 0 | -4.533491 | 2 1 | 8.852533 |
|     |     |     |     | 5 0 | 10.161533 | 4 1 | -4.977263 |
|     |     |     |     | 7 0 | -7.020087 | 6 1 | -11.319551 |
| 11/2 | 1/2 | 7/2 | 3/2 | 3 0 | 0.0 | 2 1 | -8.944272 |
|     |     |     |     | 5 0 | 0.0 | 4 1 | 7.531751 |
|     |     |     |     | 7 0 | 0.0 | 6 1 | 12.299298 |
| 15/2 | 1/2 | 15/2 | 1/2 | 1 0 | 9.856108 | 0 1 | 4.898979 |
|     |     |     |     | 3 0 | -3.592644 | 2 1 | -6.452337 |
|     |     |     |     | 5 0 | 0.445613 | 4 1 | 9.466367 |
|     |     |     |     | 7 0 | 12.643156 | 6 1 | -16.463564 |
| 15/2 | 1/2 | 7/2 | 3/2 | 5 0 | 0.0 | 4 1 | 9.341987 |
|     |     |     |     | 7 0 | 0.0 | 6 1 | -17.225774 |
| 7/2 | 3/2 | 7/2 | 3/2 | 1 0 | 4.898979 | 0 1 | 10.954451 |
|     |     |     |     | 3 0 | 7.493315 | 2 1 | -8.164966 |
|     |     |     |     | 5 0 | 9.380832 | 4 1 | -10.954451 |
|     |     |     |     | 7 0 | 10.954451 | 6 1 | -13.165612 |

## TABLE V. The Reduced Matrix Element Sums

$$\sum_{J''_\mu T''_\mu} \frac{\langle J''_\mu T''_\mu \| [M \times M]^{J_o T_o} \| J_\mu T_\mu \rangle^2}{(2J_\mu + 1)(2T_\mu + 1)}$$

| J | T | $J_o$ | $T_o$ | $\Sigma$ | $J_o$ | $T_o$ | $\Sigma$ |
|---|---|---|---|---|---|---|---|
| 0 | 2 | 0 | 1 | 6 | | | |
| | | 2 | 1 | 10 | | | — |
| | | 4 | 1 | 18 | | | |
| | | 6 | 1 | 26 | | | |
| 2 | 1 | 0 | 1 | 2 | 1 | 0 | 2/7 |
| | | 2 | 1 | 38/3 | 3 | 0 | 10/3 |
| | | 4 | 1 | 12 | 5 | 0 | 176/21 |
| | | 6 | 1 | 52/3 | 7 | 0 | 4 |
| 4 | 1 | 0 | 1 | 2 | 1 | 0 | 20/21 |
| | | 2 | 1 | 20/3 | 3 | 0 | 166/33 |
| | | 4 | 1 | 18 | 5 | 0 | 64/21 |
| | | 6 | 1 | 52/3 | 7 | 0 | 230/33 |
| 6 | 1 | 0 | 1 | 2 | 1 | 0 | 2 |
| | | 2 | 1 | 20/3 | 3 | 0 | 56/33 |
| | | 4 | 1 | 12 | 5 | 0 | 188/39 |
| | | 6 | 1 | 70/3 | 7 | 0 | 1070/143 |
| 2 | 0 | 0 | 1 | -- | 1 | 0 | 2/7 |
| | | 2 | 1 | 6 | 3 | 0 | 116/11 |
| | | 4 | 1 | 252/11 | 5 | 0 | 26/7 |
| | | 6 | 1 | 78/11 | 7 | 0 | 104/11 |
| 4 | 0 | 0 | 1 | -- | 1 | 0 | 20/21 |
| | | 2 | 1 | 14 | 3 | 0 | 10/3 |
| | | 4 | 1 | 6 | 5 | 0 | 3674/273 |
| | | 6 | 1 | 16 | 7 | 0 | 244/39 |
| 5 | 0 | 0 | 1 | -- | 1 | 0 | 10/7 |
| | | 2 | 1 | 48/7 | 3 | 0 | 70/11 |
| | | 4 | 1 | 1152/77 | 5 | 0 | 46/7 |
| | | 6 | 1 | 156/11 | 7 | 0 | 106/11 |
| 8 | 0 | 0 | 1 | -- | 1 | 0 | 24/7 |
| | | 2 | 1 | 20/7 | 3 | 0 | 28/11 |
| | | 4 | 1 | 774/77 | 5 | 0 | 514/91 |
| | | 6 | 1 | 254/11 | 7 | 0 | 1770/143 |
| 7/2 | 3/2 | 0 | 1 | 15/4 | 1 | 0 | 3/4 |
| | | 2 | 1 | 35/4 | 3 | 0 | 7/4 |
| | | 4 | 1 | 63/4 | 5 | 0 | 11/4 |
| | | 6 | 1 | 91/4 | 7 | 0 | 15/4 |
| 3/2 | 1/2 | 0 | 1 | 3/4 | 1 | 0 | 5/28 |
| | | 2 | 1 | 213/28 | 3 | 0 | 35/4 |
| | | 4 | 1 | 585/28 | 5 | 0 | 121/28 |
| | | 6 | 1 | 39/4 | 7 | 0 | 31/4 |
| 5/2 | 1/2 | 0 | 1 | 3/4 | 1 | 0 | 5/12 |
| | | 2 | 1 | 59/4 | 3 | 0 | 455/132 |
| | | 4 | 1 | 345/44 | 5 | 0 | 149/12 |
| | | 6 | 1 | 689/44 | 7 | 0 | 623/132 |
| 9/2 | 1/2 | 0 | 1 | 3/4 | 1 | 0 | 33/28 |
| | | 2 | 1 | 157/28 | 3 | 0 | 301/44 |
| | | 4 | 1 | 5679/308 | 5 | 0 | 1405/364 |
| | | 6 | 1 | 625/44 | 7 | 0 | 5217/572 |
| 11/2 | 1/2 | 0 | 1 | 3/4 | 1 | 0 | 143/84 |
| | | 2 | 1 | 35/4 | 3 | 0 | 419/132 |
| | | 4 | 1 | 453/44 | 5 | 0 | 683/84 |
| | | 6 | 1 | 845/44 | 7 | 0 | 1055/132 |
| 15/2 | 1/2 | 0 | 1 | 3/4 | 1 | 0 | 85/28 |
| | | 2 | 1 | 15/4 | 3 | 0 | 93/44 |
| | | 4 | 1 | 477/44 | 5 | 0 | 1821/364 |
| | | 6 | 1 | 1041/44 | 7 | 0 | 6205/572 |

See page 321 for Explanation of Tables