* Rank 0 tensor.

$$[T]$$

$$T = T_s^{(1)}$$

* Rank 1 tensor.

$$\begin{bmatrix} 0 & 0 & T_z \end{bmatrix}$$

$$T_z = T_{pz}^{(1)}$$

* Rank 2 tensor (s).

$$\begin{bmatrix} T_{xx} & 0 & 0 \\ 0 & T_{xx} & 0 \\ 0 & 0 & T_{zz} \end{bmatrix}$$

$$T_{xx} = -T_{du}^{(1)} + T_s^{(1)}$$
$$T_{zz} = 2T_{du}^{(1)} + T_s^{(1)}$$

* Rank 2 tensor (a).

$$\begin{bmatrix} 0 & T_{xy} & 0 \\ -T_{xy} & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$$

$$T_{xy} = M_{pz}^{(1)}$$

* Rank 3 tensor (s).

$$\begin{bmatrix} T_{xxx} & T_{xxy} & T_{xxz} \\ -T_{xxx} & -T_{xxy} & T_{xxz} \\ 0 & 0 & T_{zzz} \\ T_{yzx} & T_{yzy} & 0 \\ T_{yzy} & -T_{yzx} & 0 \\ T_{xxy} & -T_{xxx} & 0 \end{bmatrix}$$

$$T_{xxx} = T_{f2}^{(1)}$$
$$T_{xxy} = T_{f1}^{(1)}$$
$$T_{xxz} = -T_{faz}^{(1)} + T_{pz}^{(1)}$$
$$T_{zzz} = 2T_{faz}^{(1)} + T_{pz}^{(1)} + 2T_{pz}^{(2)}$$
$$T_{yzx} = -3M_{du}^{(1)}$$
$$T_{yzy} = -T_{faz}^{(1)} + T_{pz}^{(2)}$$

* Rank 3 tensor (a).

$$\begin{bmatrix} T_{yzx} & T_{yzy} & 0 \\ -T_{yzy} & T_{yzx} & 0 \\ 0 & 0 & T_{xyz} \end{bmatrix}$$

$$T_{yzx} = -M_{du}^{(2)} + M_s^{(1)}$$
$$T_{yzy} = T_{pz}^{(3)}$$
$$T_{xyz} = 2M_{du}^{(2)} + M_s^{(1)}$$

* Rank 4 tensor (sss).

$$\begin{bmatrix}
T_{xxxx} & T_{xxyy} & T_{xxzz} & T_{xxyz} & T_{xxzx} & 0 \\
T_{xxyy} & T_{xxxx} & T_{xxzz} & -T_{xxyz} & -T_{xxzx} & 0 \\
T_{xxzz} & T_{xxzz} & T_{zzzz} & 0 & 0 & 0 \\
T_{xxyz} & -T_{xxyz} & 0 & T_{yzyz} & 0 & -T_{xxzx} \\
T_{xxzx} & -T_{xxzx} & 0 & 0 & T_{yzyz} & T_{xxyz} \\
0 & 0 & 0 & -T_{xxzx} & T_{xxyz} & \frac{T_{xxxx}}{2} - \frac{T_{xxyy}}{2}
\end{bmatrix}$$

$$T_{xxxx} = -2T_{du}^{(1)} - 4T_{du}^{(2)} + 3T_{g0}^{(1)} + T_s^{(1)} + 2T_s^{(2)}$$

$$T_{xxyy} = -2T_{du}^{(1)} + T_{g0}^{(1)} + T_s^{(1)}$$

$$T_{xxzz} = T_{du}^{(1)} - 4T_{g0}^{(1)} + T_s^{(1)}$$

$$T_{xxyz} = T_{gb}^{(1)}$$

$$T_{xxzx} = T_{ga}^{(1)}$$

$$T_{zzzz} = 4T_{du}^{(1)} + 8T_{du}^{(2)} + 8T_{g0}^{(1)} + T_s^{(1)} + 2T_s^{(2)}$$

$$T_{yzyz} = T_{du}^{(2)} - 4T_{g0}^{(1)} + T_s^{(2)}$$

* Rank 4 tensor (ssa).

$$\begin{bmatrix}
0 & 0 & T_{xxzz} & T_{xxyz} & T_{xxzx} & T_{xxxy} \\
0 & 0 & T_{xxzz} & -T_{xxyz} & -T_{xxzx} & -T_{xxxy} \\
-T_{xxzz} & -T_{xxzz} & 0 & 0 & 0 & 0 \\
-T_{xxyz} & T_{xxyz} & 0 & 0 & T_{yzzx} & T_{xxzx} \\
-T_{xxzx} & T_{xxzx} & 0 & -T_{yzzx} & 0 & -T_{xxyz} \\
-T_{xxxy} & T_{xxxy} & 0 & -T_{xxzx} & T_{xxyz} & 0
\end{bmatrix}$$

$$T_{xxzz} = 3T_{du}^{(3)}$$

$$T_{xxyz} = 2M_{f2}^{(1)}$$

$$T_{xxzx} = -2M_{f1}^{(1)}$$

$$T_{xxxy} = -2M_{faz}^{(1)} + 2M_{pz}^{(1)}$$

$$T_{yzzx} = -4M_{faz}^{(1)} - M_{pz}^{(1)}$$

* Rank 4 tensor (aas).

$$\begin{bmatrix}
T_{yzyz} & 0 & 0 \\
0 & T_{yzyz} & 0 \\
0 & 0 & T_{xyxy}
\end{bmatrix}$$

$$T_{yzyz} = -2T_{du}^{(4)} + T_s^{(3)}$$

$$T_{xyxy} = 4T_{du}^{(4)} + T_s^{(3)}$$

* Rank 4 tensor (aaa).

$$\begin{bmatrix}
0 & T_{yzzx} & 0 \\
-T_{yzzx} & 0 & 0 \\
0 & 0 & 0
\end{bmatrix}$$

$$T_{yzzx} = -M_{pz}^{(2)}$$

* Rank 4 tensor (sa).

$$\begin{bmatrix}
T_{xxyz} & T_{xxzx} & T_{xxxy} \\
-T_{xxyz} & -T_{xxzx} & T_{xxxy} \\
0 & 0 & T_{zzxy} \\
T_{yzyz} & T_{yzzx} & 0 \\
T_{yzzx} & -T_{yzyz} & 0 \\
T_{xxzx} & -T_{xxyz} & 0
\end{bmatrix}$$

$$T_{xxyz} = M_{f2}^{(2)}$$

$$T_{xxzx} = M_{f1}^{(2)}$$

$$T_{xxxy} = -M_{faz}^{(2)} + M_{pz}^{(3)}$$

$$T_{zzxy} = 2M_{faz}^{(2)} + M_{pz}^{(3)} + 2M_{pz}^{(4)}$$

$$T_{yzyz} = -3T_{du}^{(5)}$$

$$T_{yzzx} = -M_{faz}^{(2)} + M_{pz}^{(4)}$$

* Rank 4 tensor (as).

$$
\begin{bmatrix}
T_{yzxx} & -T_{yzxx} & 0 & T_{yzyz} & T_{yzzx} & T_{yzxy} \\
T_{yzxy} & -T_{yzxy} & 0 & T_{yzzx} & -T_{yzyz} & -T_{yzxx} \\
T_{xyxx} & T_{xyxx} & T_{xyzz} & 0 & 0 & 0
\end{bmatrix}
$$

$$T_{yzxx} = M_{f2}^{(3)}$$

$$T_{yzyz} = -3T_{du}^{(6)}$$

$$T_{yzzx} = -M_{faz}^{(3)} + M_{pz}^{(6)}$$

$$T_{yzxy} = M_{f1}^{(3)}$$

$$T_{xyxx} = -M_{faz}^{(3)} + M_{pz}^{(5)}$$

$$T_{xyzz} = 2M_{faz}^{(3)} + M_{pz}^{(5)} + 2M_{pz}^{(6)}$$

* Rank 4 tensor (s).

$$
\begin{bmatrix}
T_{xxxx} & T_{xxyy} & T_{xxzz} & T_{xxyz} & T_{xxzx} & T_{xxxy} & T_{xxzy} & T_{xxxz} & T_{xxyx} \\
T_{xxyy} & T_{xxxx} & T_{xxzz} & -T_{xxyz} & -T_{xxzx} & -T_{xxyx} & -T_{xxzy} & -T_{xxxz} & -T_{xxxy} \\
T_{zzxx} & T_{zzxx} & T_{zzzz} & 0 & 0 & T_{zzxy} & 0 & 0 & -T_{zzxy} \\
T_{yzxx} & -T_{yzxx} & 0 & T_{yzyz} & T_{yzzx} & T_{yzxy} & T_{yzzy} & T_{yzxz} & T_{yzxy} \\
-T_{yzxy} & T_{yzxy} & 0 & -T_{yzxz} & T_{yzzy} & T_{yzxx} & -T_{yzzx} & T_{yzyz} & T_{yzxx} \\
-\frac{T_{xxxy}}{2} - \frac{T_{xxyx}}{2} & \frac{T_{xxxy}}{2} + \frac{T_{xxyx}}{2} & 0 & -T_{xxxz} & T_{xxzy} & \frac{T_{xxxx}}{2} - \frac{T_{xxyy}}{2} & -T_{xxzx} & T_{xxyz} & \frac{T_{xxxx}}{2} - \frac{T_{xxyy}}{2}
\end{bmatrix}
$$

$$T_{xxxx} = -2T_{du}^{(1)} - 4T_{du}^{(2)} + 3T_{g0}^{(1)} + T_s^{(1)} + 2T_s^{(2)}$$

$$T_{xxyy} = -2T_{du}^{(1)} + T_{g0}^{(1)} + T_s^{(1)}$$

$$T_{xxzz} = T_{du}^{(1)} + 3T_{du}^{(3)} - 4T_{g0}^{(1)} + T_s^{(1)}$$

$$T_{xxyz} = 2M_{f2}^{(1)} + M_{f2}^{(2)} + T_{gb}^{(1)}$$

$$T_{xxzx} = -2M_{f1}^{(1)} + M_{f1}^{(2)} + T_{ga}^{(1)}$$

$$T_{xxxy} = -2M_{faz}^{(1)} - M_{faz}^{(2)} + 2M_{pz}^{(1)} + M_{pz}^{(3)}$$

$$T_{xxzy} = 2M_{f2}^{(1)} - M_{f2}^{(2)} + T_{gb}^{(1)}$$

$$T_{xxxz} = -2M_{f1}^{(1)} - M_{f1}^{(2)} + T_{ga}^{(1)}$$

$$T_{xxyx} = -2M_{faz}^{(1)} + M_{faz}^{(2)} + 2M_{pz}^{(1)} - M_{pz}^{(3)}$$

$$T_{zzxx} = T_{du}^{(1)} - 3T_{du}^{(3)} - 4T_{g0}^{(1)} + T_s^{(1)}$$

$$T_{zzzz} = 4T_{du}^{(1)} + 8T_{du}^{(2)} + 8T_{g0}^{(1)} + T_s^{(1)} + 2T_s^{(2)}$$

$$T_{zzxy} = 2M_{faz}^{(2)} + M_{pz}^{(3)} + 2M_{pz}^{(4)}$$

$$T_{yzxx} = -2M_{f2}^{(1)} + T_{gb}^{(1)}$$

$$T_{yzyz} = T_{du}^{(2)} - 3T_{du}^{(5)} - 4T_{g0}^{(1)} + T_s^{(2)}$$

$$T_{yzzx} = -4M_{faz}^{(1)} - M_{faz}^{(2)} - M_{pz}^{(1)} + M_{pz}^{(4)}$$

$$T_{yzxy} = -2M_{f1}^{(1)} - T_{ga}^{(1)}$$

$$T_{yzzy} = T_{du}^{(2)} + 3T_{du}^{(5)} - 4T_{g0}^{(1)} + T_s^{(2)}$$

$$T_{yzxz} = -4M_{faz}^{(1)} + M_{faz}^{(2)} - M_{pz}^{(1)} - M_{pz}^{(4)}$$

* Rank 4 tensor (a).

$$
\begin{bmatrix}
T_{yzxx} & -T_{yzxx} & 0 & T_{yzyz} & T_{yzzx} & T_{yzxy} & T_{yzzy} & T_{yzxz} & T_{yzxy} \\
T_{yzxy} & -T_{yzxy} & 0 & T_{yzxz} & -T_{yzzy} & -T_{yzxx} & T_{yzzx} & -T_{yzyz} & -T_{yzxx} \\
T_{xyxx} & T_{xyxx} & T_{xyzz} & 0 & 0 & T_{xyxy} & 0 & 0 & -T_{xyxy}
\end{bmatrix}
$$

$T_{yzxx} = M_{f2}^{(3)}$

$T_{yzyz} = -2T_{du}^{(4)} - 3T_{du}^{(6)} + T_{s}^{(3)}$

$T_{yzzx} = -M_{faz}^{(3)} - M_{pz}^{(2)} + M_{pz}^{(6)}$

$T_{yzxy} = M_{f1}^{(3)}$

$T_{yzzy} = 2T_{du}^{(4)} - 3T_{du}^{(6)} - T_{s}^{(3)}$

$T_{yzxz} = -M_{faz}^{(3)} + M_{pz}^{(2)} + M_{pz}^{(6)}$

$T_{xyxx} = -M_{faz}^{(3)} + M_{pz}^{(5)}$

$T_{xyzz} = 2M_{faz}^{(3)} + M_{pz}^{(5)} + 2M_{pz}^{(6)}$

$T_{xyxy} = 4T_{du}^{(4)} + T_{s}^{(3)}$

* Rank 4 tensor (t).

$$
\begin{bmatrix}
T_{xxxx} & 0 & T_{xxxz} \\
0 & T_{xxxx} & T_{yyyz} \\
0 & 0 & T_{zzzz} \\
-T_{xxxz} & T_{yyyz} & T_{yyzz} \\
T_{zzxx} & 0 & 0 \\
0 & T_{xxyy} & -T_{yyyz} \\
0 & T_{yzzy} & 0 \\
T_{xxxz} & -T_{yyyz} & -\frac{T_{xxxx}}{2} + \frac{3T_{xxyy}}{2} + T_{yyzz} - T_{yzzy} + T_{zzxx} \\
\frac{T_{xxxx}}{2} - \frac{T_{xxyy}}{2} & 0 & -T_{xxxz} \\
-T_{yyyz} & -T_{xxxz} & 0
\end{bmatrix}
$$

$T_{xxxx} = -2T_{du}^{(1)} - 4T_{du}^{(2)} + 3T_{g0}^{(1)} + 3T_{s}^{(1)}$

$T_{xxxz} = T_{ga}^{(1)}$

$T_{yyyz} = -T_{gb}^{(1)}$

$T_{zzzz} = 4T_{du}^{(1)} + 8T_{du}^{(2)} + 8T_{g0}^{(1)} + 3T_{s}^{(1)}$

$T_{yyzz} = T_{du}^{(1)} + 3T_{du}^{(3)} - 4T_{g0}^{(1)} + T_{s}^{(1)}$

$T_{zzxx} = T_{du}^{(1)} - 3T_{du}^{(3)} - 4T_{g0}^{(1)} + T_{s}^{(1)}$

$T_{xxyy} = -2T_{du}^{(1)} + T_{g0}^{(1)} + T_{s}^{(1)}$

$T_{yzzy} = T_{du}^{(2)} + 3T_{du}^{(5)} - 4T_{g0}^{(1)} + T_{s}^{(1)}$