

\* Rank 0 tensor. \* Rank 1 tensor. \* Rank 2 tensor (s).

$$\begin{bmatrix} 0 & M_{xy} & 0 \\ M_{xy} & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$$

$$M_{xy} = M_{dxy}^{(1)}$$

\* Rank 2 tensor (a). \* Rank 3 tensor (s). \* Rank 3 tensor (a). \* Rank 4 tensor (sss).

$$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & M_{xxx} \\ 0 & 0 & 0 & 0 & 0 & M_{xxxy} \\ 0 & 0 & 0 & 0 & 0 & M_{zzxy} \\ 0 & 0 & 0 & 0 & M_{yzzx} & 0 \\ 0 & 0 & 0 & M_{yzzx} & 0 & 0 \\ M_{xxx} & M_{xxxy} & M_{zzxy} & 0 & 0 & 0 \end{bmatrix}$$

$$M_{xxx} = M_{dxy}^{(1)} + 2M_{dxy}^{(2)} - M_{gbz}^{(1)}$$

$$M_{zzxy} = M_{dxy}^{(1)} + 2M_{gbz}^{(1)}$$

$$M_{yzzx} = M_{dxy}^{(2)} + 2M_{gbz}^{(1)}$$

\* Rank 4 tensor (ssa).

$$\begin{bmatrix} 0 & 0 & 0 & 0 & 0 & M_{xxx} \\ 0 & 0 & 0 & 0 & 0 & M_{xxxy} \\ 0 & 0 & 0 & 0 & 0 & M_{zzxy} \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ -M_{xxx} & -M_{xxxy} & -M_{zzxy} & 0 & 0 & 0 \end{bmatrix}$$

$$M_{xxxy} = M_{dxy}^{(3)} + 2T_{fbz}^{(1)}$$

$$M_{zzxy} = M_{dxy}^{(3)} - 4T_{fbz}^{(1)}$$

\* Rank 4 tensor (aas).

$$\begin{bmatrix} 0 & M_{yzzx} & 0 \\ M_{yzzx} & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$$

$$M_{yzzx} = 2M_{dxy}^{(4)}$$

\* Rank 4 tensor (aaa). \* Rank 4 tensor (sa).

$$\begin{bmatrix} 0 & 0 & M_{xxx} \\ 0 & 0 & -M_{xxxy} \\ 0 & 0 & 0 \\ 0 & M_{yzzx} & 0 \\ -M_{yzzx} & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$$

$$M_{xxxy} = -2M_{dxy}^{(5)} + T_{fbz}^{(2)}$$

$$M_{yzzx} = -M_{dxy}^{(5)} - T_{fbz}^{(2)}$$

\* Rank 4 tensor (as).

$$\begin{bmatrix} 0 & 0 & 0 & 0 & M_{yzzx} & 0 \\ 0 & 0 & 0 & -M_{yzzx} & 0 & 0 \\ M_{xyxx} & -M_{xyxx} & 0 & 0 & 0 & 0 \end{bmatrix}$$

$$\begin{aligned} M_{yzzx} &= M_{dxy}^{(6)} + T_{fbz}^{(3)} \\ M_{xyxx} &= -2M_{dxy}^{(6)} + T_{fbz}^{(3)} \end{aligned}$$

\* Rank 4 tensor (s).

$$\left[ \begin{array}{ccccccccc} 0 & 0 & 0 & 0 & 0 & M_{xxx} & 0 & 0 & M_{xxyx} \\ 0 & 0 & 0 & 0 & 0 & M_{xxyx} & 0 & 0 & M_{xxx} \\ 0 & 0 & 0 & 0 & 0 & M_{zzxy} & 0 & 0 & M_{zzxy} \\ 0 & 0 & 0 & 0 & M_{yzzx} & 0 & 0 & M_{yzzx} & 0 \\ 0 & 0 & 0 & M_{yzzx} & 0 & 0 & M_{yzzx} & 0 & 0 \\ M_{xyxx} & M_{xyxx} & M_{xyzz} & 0 & 0 & 0 & 0 & 0 & 0 \end{array} \right]$$

$$\begin{aligned} M_{xxx} &= M_{dxy}^{(1)} + 2M_{dxy}^{(2)} + M_{dxy}^{(3)} - 2M_{dxy}^{(5)} - M_{gbz}^{(1)} + 2T_{fbz}^{(1)} + T_{fbz}^{(2)} \\ M_{xxyx} &= M_{dxy}^{(1)} + 2M_{dxy}^{(2)} + M_{dxy}^{(3)} + 2M_{dxy}^{(5)} - M_{gbz}^{(1)} + 2T_{fbz}^{(1)} - T_{fbz}^{(2)} \\ M_{zzxy} &= M_{dxy}^{(1)} + M_{dxy}^{(3)} + 2M_{gbz}^{(1)} - 4T_{fbz}^{(1)} \\ M_{yzzx} &= M_{dxy}^{(2)} - M_{dxy}^{(5)} + 2M_{gbz}^{(1)} - T_{fbz}^{(2)} \\ M_{yzzx} &= M_{dxy}^{(2)} + M_{dxy}^{(5)} + 2M_{gbz}^{(1)} + T_{fbz}^{(2)} \\ M_{xyxx} &= M_{dxy}^{(1)} + 2M_{dxy}^{(2)} - M_{dxy}^{(3)} - M_{dxy}^{(5)} - M_{gbz}^{(1)} - 2T_{fbz}^{(1)} \\ M_{xyzz} &= M_{dxy}^{(1)} - M_{dxy}^{(3)} + 2M_{gbz}^{(1)} + 4T_{fbz}^{(1)} \end{aligned}$$

\* Rank 4 tensor (a).

$$\left[ \begin{array}{ccccccccc} 0 & 0 & 0 & 0 & M_{yzzx} & 0 & 0 & M_{yzzx} & 0 \\ 0 & 0 & 0 & -M_{yzzx} & 0 & 0 & -M_{yzzx} & 0 & 0 \\ M_{xyxx} & -M_{xyxx} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{array} \right]$$

$$\begin{aligned} M_{yzzx} &= 2M_{dxy}^{(4)} + M_{dxy}^{(6)} + T_{fbz}^{(3)} \\ M_{yzzx} &= -2M_{dxy}^{(4)} + M_{dxy}^{(6)} + T_{fbz}^{(3)} \\ M_{xyxx} &= -2M_{dxy}^{(6)} + T_{fbz}^{(3)} \end{aligned}$$

\* Rank 4 tensor (t).

$$\left[ \begin{array}{ccccccccc} 0 & M_{xxx} & 0 & & & & & & \\ M_{xxx} & 0 & 0 & & & & & & \\ 0 & 0 & 0 & & & & & & \\ 0 & M_{zzxy} & 0 & & & & & & \\ M_{xxyx} & 0 & 0 & & & & & & \\ M_{yzzx} & 0 & 0 & & & & & & \\ 0 & M_{xyyy} & 0 & & & & & & \\ 0 & 0 & -\frac{M_{xxx}}{2} - \frac{M_{xxyx}}{2} + M_{xyyy} + M_{zzxy} & & & & & & \end{array} \right]$$

$$\begin{aligned} M_{xxx} &= M_{dxy}^{(1)} + 2M_{dxy}^{(2)} + M_{dxy}^{(3)} - 2M_{dxy}^{(5)} - M_{gbz}^{(1)} \\ M_{zzxy} &= M_{dxy}^{(1)} + M_{dxy}^{(3)} + 2M_{gbz}^{(1)} \\ M_{xxyx} &= M_{dxy}^{(1)} + 2M_{dxy}^{(2)} + M_{dxy}^{(3)} + 2M_{dxy}^{(5)} - M_{gbz}^{(1)} \\ M_{yzzx} &= M_{dxy}^{(2)} - M_{dxy}^{(5)} + 2M_{gbz}^{(1)} \\ M_{xyyy} &= M_{dxy}^{(1)} + 2M_{dxy}^{(2)} - M_{dxy}^{(3)} - M_{gbz}^{(1)} \end{aligned}$$