

MPG No. 27.9.157 $6'/m'mm'$ ($6'/m'm'm$ setting) [Type III, hexagonal] [T tensor]

* Rank 0 tensor. * Rank 1 tensor. * Rank 2 tensor (s). * Rank 2 tensor (a). * Rank 3 tensor (s). * Rank 3 tensor (a). * Rank 4 tensor (sss).

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

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

* Rank 4 tensor (ssa).

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

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

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

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

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

* Rank 4 tensor (as).

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

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

* Rank 4 tensor (s).

$$\begin{bmatrix} 0 & 0 & 0 & 0 & T_{xxzx} & 0 & 0 & T_{xxzx} & 0 \\ 0 & 0 & 0 & 0 & -T_{xxzx} & 0 & 0 & -T_{xxzx} & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & T_{yzxy} & 0 & 0 & T_{yzxy} \\ -T_{yzxy} & T_{yzxy} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & -T_{xxzx} & 0 & 0 & -T_{xxzx} & 0 & 0 \end{bmatrix}$$

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

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

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

* Rank 4 tensor (a).

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

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

* Rank 4 tensor (t).

$$\begin{bmatrix} 0 & 0 & T_{xxxx} \\ 0 & 0 & 0 \\ 0 & 0 & 0 \\ -T_{xxxx} & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \\ T_{xxxz} & 0 & 0 \\ 0 & 0 & -T_{xxxz} \\ 0 & -T_{xxxz} & 0 \end{bmatrix}$$

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