

MPG No. 32.3.120 $m' \bar{3}' m$ [Type III, cubic] [M 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). * Rank 4 tensor (ssa).

$$\begin{bmatrix} 0 & M_{xxyy} & -M_{xxyy} & 0 & 0 & 0 \\ -M_{xxyy} & 0 & M_{xxyy} & 0 & 0 & 0 \\ M_{xxyy} & -M_{xxyy} & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 \end{bmatrix}$$

$$M_{xxyy} = 4T_{f3}^{(1)}$$

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

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

$$M_{yzyz} = T_{f3}^{(2)}$$

* Rank 4 tensor (as).

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

$$M_{yzyz} = T_{f3}^{(3)}$$

* Rank 4 tensor (s).

$$\begin{bmatrix} 0 & M_{xxyy} & -M_{xxyy} & 0 & 0 & 0 & 0 & 0 \\ -M_{xxyy} & 0 & M_{xxyy} & 0 & 0 & 0 & 0 & 0 \\ M_{xxyy} & -M_{xxyy} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & M_{yzyz} & 0 & 0 & -M_{yzyz} & 0 \\ 0 & 0 & 0 & 0 & M_{yzyz} & 0 & 0 & -M_{yzyz} \\ 0 & 0 & 0 & 0 & 0 & M_{yzyz} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & -M_{yzyz} & -M_{yzyz} \end{bmatrix}$$

$$M_{xxyy} = 4T_{f3}^{(1)}$$

$$M_{yzyz} = T_{f3}^{(2)}$$

* Rank 4 tensor (a).

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

$$M_{yzyz} = T_{f3}^{(3)}$$

* Rank 4 tensor (t).