

MPG No. 11.5.39  $4'/m'$  [ Type III, tetragonal ] [T tensor]

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

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

$$\begin{aligned} T_{xxz} &= -2M_{dxy}^{(1)} + T_{fbz}^{(1)} \\ T_{yzx} &= -M_{dv}^{(1)} + T_{f3}^{(1)} \\ T_{yzy} &= -M_{dxy}^{(1)} - T_{fbz}^{(1)} \\ T_{xyz} &= 2M_{dv}^{(1)} + T_{f3}^{(1)} \end{aligned}$$

\* Rank 3 tensor (a).

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

$$\begin{aligned} T_{yzx} &= M_{dv}^{(2)} \\ T_{yzy} &= M_{dxy}^{(2)} \end{aligned}$$

\* Rank 4 tensor (sss). \* Rank 4 tensor (ssa). \* Rank 4 tensor (aas). \* Rank 4 tensor (aaa). \* Rank 4 tensor (sa). \* Rank 4 tensor (as). \* Rank 4 tensor (s). \* Rank 4 tensor (a). \* Rank 4 tensor (t).