

MPG No. 26.4.98  $\bar{6}'m2'$  (-6'm2' setting) [ Type III, hexagonal ] [T tensor]

\* Rank 0 tensor. \* Rank 1 tensor.

$$[0 \ 0 \ T_z]$$

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

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

$$\begin{bmatrix} 0 & 0 & T_{xxz} \\ 0 & 0 & T_{xxz} \\ 0 & 0 & T_{zzz} \\ 0 & T_{yzy} & 0 \\ T_{yzy} & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$$

$$T_{xxz} = -T_{faz}^{(1)} + T_{pz}^{(1)}$$

$$T_{zzz} = 2T_{faz}^{(1)} + T_{pz}^{(1)} + 2T_{pz}^{(2)}$$

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

\* Rank 3 tensor (a).

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

$$T_{yzy} = T_{pz}^{(3)}$$

\* Rank 4 tensor (sss).

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

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

\* Rank 4 tensor (ssa).

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

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

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

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

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

\* Rank 4 tensor (as).

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

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

\* Rank 4 tensor (s).

$$\begin{bmatrix} 0 & 0 & 0 & T_{xxyz} & 0 & 0 & T_{xxzy} & 0 & 0 \\ 0 & 0 & 0 & -T_{xxyz} & 0 & 0 & -T_{xxzy} & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ T_{yzxx} & -T_{yzxx} & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & 0 & T_{yzxx} & 0 & 0 & T_{yzxx} \\ 0 & 0 & 0 & 0 & T_{xxzy} & 0 & 0 & T_{xxyz} & 0 \end{bmatrix}$$

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

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

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

\* Rank 4 tensor (a).

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

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

\* Rank 4 tensor (t).

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

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