

MPG No. 25.3.93  $6'mm'$  (6'mm' setting) [ Type III, hexagonal ] [M tensor]

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

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

$$M_{xxx} = M_{f2}^{(1)}$$

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

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

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

\* Rank 4 tensor (ssa).

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

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

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

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

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

\* Rank 4 tensor (as).

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

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

\* Rank 4 tensor (s).

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

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

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

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

\* Rank 4 tensor (a).

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

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

\* Rank 4 tensor (t).

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

$$M_{xxxz} = M_{ga}^{(1)}$$