

MPG No. 5.1.12 2/m [Type I, monoclinic] [M tensor]

* Rank 0 tensor. * Rank 1 tensor.

$$[0 \quad M_y \quad 0]$$

$$M_y = M_{py}^{(1)}$$

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

$$\begin{bmatrix} 0 & M_{xxy} & 0 \\ 0 & M_{yyy} & 0 \\ 0 & M_{zzy} & 0 \\ M_{yzzx} & 0 & M_{yzz} \\ 0 & M_{zxy} & 0 \\ M_{xyx} & 0 & M_{xyz} \end{bmatrix}$$

$$M_{xxy} = -M_{fay}^{(1)} - M_{fbg}^{(1)} + M_{py}^{(1)} + 2T_{dxz}^{(1)}$$

$$M_{yyy} = 2M_{fay}^{(1)} + M_{py}^{(1)} + 2M_{py}^{(2)}$$

$$M_{zzy} = -M_{fay}^{(1)} + M_{fbg}^{(1)} + M_{py}^{(1)} - 2T_{dxz}^{(1)}$$

$$M_{yzzx} = M_{f3}^{(1)} - 3T_{du}^{(1)} - T_{dv}^{(1)}$$

$$M_{yzz} = -M_{fay}^{(1)} + M_{fbg}^{(1)} + M_{py}^{(2)} + T_{dxz}^{(1)}$$

$$M_{zxy} = M_{f3}^{(1)} + 3T_{du}^{(1)} - T_{dv}^{(1)}$$

$$M_{xyx} = -M_{fay}^{(1)} - M_{fbg}^{(1)} + M_{py}^{(2)} - T_{dxz}^{(1)}$$

$$M_{xyz} = M_{f3}^{(1)} + 2T_{dv}^{(1)}$$

* Rank 3 tensor (a).

$$\begin{bmatrix} M_{yzzx} & 0 & M_{yzz} \\ 0 & M_{zxy} & 0 \\ M_{xyx} & 0 & M_{xyz} \end{bmatrix}$$

$$M_{yzzx} = -T_{du}^{(2)} + T_{dv}^{(2)} + T_s^{(1)}$$

$$M_{yzz} = -M_{py}^{(3)} + T_{dxz}^{(2)}$$

$$M_{zxy} = -T_{du}^{(2)} - T_{dv}^{(2)} + T_s^{(1)}$$

$$M_{xyx} = M_{py}^{(3)} + T_{dxz}^{(2)}$$

$$M_{xyz} = 2T_{du}^{(2)} + T_s^{(1)}$$

* 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).