

\* Rank 0 tensor.

$$[G]$$

$$G = G_s^{(1)}$$

\* Rank 1 tensor. \* Rank 2 tensor (s).

$$\begin{bmatrix} G_{xx} & 0 & 0 \\ 0 & G_{xx} & 0 \\ 0 & 0 & G_{xx} \end{bmatrix}$$

$$G_{xx} = G_s^{(1)}$$

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

$$\begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \\ G_{yzx} & 0 & 0 \\ 0 & G_{yzx} & 0 \\ 0 & 0 & G_{yzx} \end{bmatrix}$$

$$G_{yzx} = G_{f3}^{(1)}$$

\* Rank 3 tensor (a).

$$\begin{bmatrix} G_{yzx} & 0 & 0 \\ 0 & G_{yzx} & 0 \\ 0 & 0 & G_{yzx} \end{bmatrix}$$

$$G_{yzx} = Q_s^{(1)}$$

\* Rank 4 tensor (sss).

$$\begin{bmatrix} G_{xxxx} & G_{xxyy} & G_{xxyy} & 0 & 0 & 0 \\ G_{xxyy} & G_{xxxx} & G_{xxyy} & 0 & 0 & 0 \\ G_{xxyy} & G_{xxyy} & G_{xxxx} & 0 & 0 & 0 \\ 0 & 0 & 0 & G_{yzyz} & 0 & 0 \\ 0 & 0 & 0 & 0 & G_{yzyz} & 0 \\ 0 & 0 & 0 & 0 & 0 & G_{yzyz} \end{bmatrix}$$

$$G_{xxxx} = 2G_g^{(1)} + G_s^{(1)} + 2G_s^{(2)}$$

$$G_{xxyy} = -G_g^{(1)} + G_s^{(1)}$$

$$G_{yzyz} = -G_g^{(1)} + G_s^{(2)}$$

\* Rank 4 tensor (ssa).

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

$$G_{xxyy} = 4Q_{f3}^{(1)}$$

\* Rank 4 tensor (aas).

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

$$G_{yzyz} = G_s^{(3)}$$

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

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

$$G_{yzyz} = Q_{f3}^{(2)}$$

\* Rank 4 tensor (as).

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

$$G_{yzyz} = Q_{f3}^{(3)}$$

\* Rank 4 tensor (s).

$$\begin{bmatrix} G_{xxxx} & G_{xxyy} & G_{xxzz} & 0 & 0 & 0 & 0 & 0 & 0 \\ G_{xxzz} & G_{xxxx} & G_{xxyy} & 0 & 0 & 0 & 0 & 0 & 0 \\ G_{xxyy} & G_{xxzz} & G_{xxxx} & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & G_{yzyz} & 0 & 0 & G_{yzzy} & 0 & 0 \\ 0 & 0 & 0 & 0 & G_{yzyz} & 0 & 0 & G_{yzzy} & 0 \\ 0 & 0 & 0 & 0 & 0 & G_{yzyz} & 0 & 0 & G_{yzzy} \end{bmatrix}$$

$$G_{xxxx} = 2G_g^{(1)} + G_s^{(1)} + 2G_s^{(2)}$$

$$G_{xxyy} = -G_g^{(1)} + G_s^{(1)} + 4Q_{f3}^{(1)}$$

$$G_{xxzz} = -G_g^{(1)} + G_s^{(1)} - 4Q_{f3}^{(1)}$$

$$G_{yzyz} = -G_g^{(1)} + G_s^{(2)} + Q_{f3}^{(2)}$$

$$G_{yzzy} = -G_g^{(1)} + G_s^{(2)} - Q_{f3}^{(2)}$$

\* Rank 4 tensor (a).

$$\begin{bmatrix} 0 & 0 & 0 & G_{yzyz} & 0 & 0 & G_{yzzy} & 0 & 0 \\ 0 & 0 & 0 & 0 & G_{yzyz} & 0 & 0 & G_{yzzy} & 0 \\ 0 & 0 & 0 & 0 & 0 & G_{yzyz} & 0 & 0 & G_{yzzy} \end{bmatrix}$$

$$G_{yzyz} = G_s^{(3)} + Q_{f3}^{(3)}$$

$$G_{yzzy} = -G_s^{(3)} + Q_{f3}^{(3)}$$

\* Rank 4 tensor (t).

$$\begin{bmatrix} G_{xxxx} & 0 & 0 \\ 0 & G_{xxxx} & 0 \\ 0 & 0 & G_{xxxx} \\ 0 & 0 & G_{yyzz} \\ G_{yyzz} & 0 & 0 \\ 0 & G_{yyzz} & 0 \\ 0 & G_{yyzz} & 0 \\ 0 & 0 & G_{yyzz} \\ G_{yyzz} & 0 & 0 \\ 0 & 0 & 0 \end{bmatrix}$$

$$G_{xxxx} = 2G_g^{(1)} + 3G_s^{(1)}$$

$$G_{yyzz} = -G_g^{(1)} + G_s^{(1)}$$