

| Fundamental field | Symmetries | Decomposition into SO(3) irrep(s) | Source |
|----------------------------|---|---|-------------------------------|
| $f_{\alpha\beta}$ | Symmetry[2, $f^{\bullet 1 \bullet 2}$, {●1 → -a, ●2 → -b}, StrongGenSet[{}], GenSet[]]] | $\frac{1}{3} \eta_{\alpha\beta} f_{0+}^{\#1} + f_{1+ \alpha\beta}^{\#1} + f_{2+ \alpha\beta}^{\#1} + f_{1- \beta}^{\#1} n_{\alpha} + f_{1- \alpha}^{\#2} n_{\beta} - \frac{1}{3} f_{0+}^{\#1} n_{\alpha} n_{\beta} + f_{0+}^{\#2} n_{\alpha} n_{\beta}$ | $\tau_{\alpha\beta}$ |
| SO(3) irrep | Symmetries | Expansion in terms of the fundamental field | Source SO(3) irrep |
| $f_{0+}^{\#1}$ | Symmetry[0, $f_{0+}^{\#1}$, {}, StrongGenSet[{}], GenSet[]]] | $f_{\alpha}^{\alpha} - f^{\alpha\beta} n_{\alpha} n_{\beta}$ | $\tau_{0+}^{\#1}$ |
| $f_{0+}^{\#2}$ | Symmetry[0, $f_{0+}^{\#2}$, {}, StrongGenSet[{}], GenSet[]]] | $f^{\alpha\beta} n_{\alpha} n_{\beta}$ | $\tau_{0+}^{\#2}$ |
| $f_{1+ \alpha\beta}^{\#1}$ | Symmetry[2, $f_{1+}^{\#1 \bullet 1 \bullet 2}$, {●1 → -a, ●2 → -b}, StrongGenSet[{1, 2}], GenSet[-(1,2)]]] | $\frac{f_{\alpha\beta}}{2} - \frac{f_{\beta\alpha}}{2} + \frac{1}{2} f_{\beta}^{\chi} n_{\alpha} n_{\chi} - \frac{1}{2} f_{\beta}^{\chi} n_{\alpha} n_{\chi} - \frac{1}{2} f_{\alpha}^{\chi} n_{\beta} n_{\chi} + \frac{1}{2} f_{\alpha}^{\chi} n_{\beta} n_{\chi}$ | $\tau_{1+ \alpha\beta}^{\#1}$ |
| $f_{1- \alpha}^{\#1}$ | Symmetry[1, $f_{1-}^{\#1 \bullet 1}$, {●1 → -a}, StrongGenSet[{}], GenSet[]]] | $f_{\alpha}^{\beta} n_{\beta} - f^{\beta\chi} n_{\alpha} n_{\beta} n_{\chi}$ | $\tau_{1- \alpha}^{\#1}$ |
| $f_{1- \alpha}^{\#2}$ | Symmetry[1, $f_{1-}^{\#2 \bullet 1}$, {●1 → -a}, StrongGenSet[{}], GenSet[]]] | $f_{\alpha}^{\beta} n_{\beta} - f^{\beta\chi} n_{\alpha} n_{\beta} n_{\chi}$ | $\tau_{1- \alpha}^{\#2}$ |
| $f_{2+ \alpha\beta}^{\#1}$ | Symmetry[2, $f_{2+}^{\#1 \bullet 1 \bullet 2}$, {●1 → -a, ●2 → -b}, StrongGenSet[{1, 2}], GenSet[(1,2)]]] | $\frac{f_{\alpha\beta}}{2} + \frac{f_{\beta\alpha}}{2} - \frac{1}{3} \eta_{\alpha\beta} f_{\chi}^{\chi} + \frac{1}{3} f_{\chi}^{\chi} n_{\alpha} n_{\beta} - \frac{1}{2} f_{\beta}^{\chi} n_{\alpha} n_{\chi} - \frac{1}{2} f_{\beta}^{\chi} n_{\alpha} n_{\chi} - \frac{1}{2} f_{\alpha}^{\chi} n_{\beta} n_{\chi} - \frac{1}{2} f_{\alpha}^{\chi} n_{\beta} n_{\chi} + \frac{1}{3} \eta_{\alpha\beta} f^{\chi\delta} n_{\chi} n_{\delta} + \frac{2}{3} f^{\chi\delta} n_{\alpha} n_{\beta} n_{\chi} n_{\delta}$ | $\tau_{2+ \alpha\beta}^{\#1}$ |