

Fundamental field	Symmetries	Decomposition into SO(3) irrep(s)	Source
$\Gamma_{\alpha\beta\chi}$	Symmetry[3, $\Gamma_{0^+}^{\bullet 1\bullet 2\bullet 3}$, $\{\bullet 1 \rightarrow -a, \bullet 2 \rightarrow -b, \bullet 3 \rightarrow -c\}$, StrongGenSet[{ $\{\}$, GenSet[{}]]]	$-\frac{1}{2}\eta_{\alpha\chi}\Gamma_{1^+}^{\#1}\beta + \frac{1}{2}\eta_{\alpha\beta}\Gamma_{1^+}^{\#1}\chi + \frac{4}{3}\Gamma_{2^+}^{\#1}\beta\chi\alpha + \frac{1}{2}\Gamma_{2^+}^{\#2}\alpha\beta\chi + \frac{1}{2}\Gamma_{2^+}^{\#2}\alpha\chi\beta + \Gamma_{3^+}^{\#1}\alpha\beta\chi + \frac{1}{3}\eta_{\beta\chi}\Gamma_{1^+}^{\#6}\alpha - \frac{1}{6}\eta_{\alpha\chi}\Gamma_{1^+}^{\#6}\beta - \frac{1}{6}\eta_{\alpha\beta}\Gamma_{1^+}^{\#6}\chi + \frac{1}{15}\eta_{\beta\chi}\Gamma_{1^+}^{\#4}\alpha + \frac{1}{15}\eta_{\alpha\chi}\Gamma_{1^+}^{\#4}\beta + \frac{1}{15}\eta_{\alpha\beta}\Gamma_{1^+}^{\#4}\chi + \Gamma_{1^+}^{\#2}\beta\chi n_\alpha + \frac{1}{9}\eta_{\beta\chi}\Gamma_{0^+}^{\#3}n_\alpha + \frac{1}{3}\Gamma_{2^+}^{\#2}\beta\chi n_\alpha + \frac{2}{3}\Gamma_{2^+}^{\#3}\beta\chi n_\alpha + \frac{2}{9}\eta_{\beta\chi}\Gamma_{0^+}^{\#4}n_\alpha + \frac{1}{3}\eta_{\alpha\chi}\Gamma_{0^+}^{\#1}n_\beta - \Gamma_{1^+}^{\#1}\alpha\chi n_\beta + \Gamma_{2^+}^{\#1}\alpha\chi n_\beta + \frac{1}{9}\eta_{\alpha\chi}\Gamma_{0^+}^{\#3}n_\beta - \frac{1}{2}\Gamma_{1^+}^{\#3}\alpha\chi n_\beta + \frac{1}{3}\Gamma_{2^+}^{\#2}\alpha\chi n_\beta - \frac{1}{3}\Gamma_{2^+}^{\#3}\alpha\chi n_\beta - \frac{1}{9}\eta_{\alpha\chi}\Gamma_{0^+}^{\#4}n_\beta - \frac{1}{2}\Gamma_{1^+}^{\#1}\chi n_\alpha n_\beta - \Gamma_{1^+}^{\#2}\chi n_\alpha n_\beta + \frac{1}{6}\Gamma_{1^+}^{\#6}\chi n_\alpha n_\beta - \frac{1}{15}\Gamma_{1^+}^{\#4}\chi n_\alpha n_\beta - \frac{1}{3}\Gamma_{1^+}^{\#5}\chi n_\alpha n_\beta + \frac{1}{3}\Gamma_{2^+}^{\#2}\alpha\beta n_\chi - \frac{1}{3}\Gamma_{2^+}^{\#3}\alpha\beta n_\chi - \frac{1}{9}\eta_{\alpha\beta}\Gamma_{0^+}^{\#4}n_\chi + \frac{1}{2}\Gamma_{1^+}^{\#1}\beta n_\alpha n_\chi + \Gamma_{1^+}^{\#2}\beta n_\alpha n_\chi + \frac{1}{6}\Gamma_{1^+}^{\#6}\beta n_\alpha n_\chi - \frac{1}{15}\Gamma_{1^+}^{\#4}\beta n_\alpha n_\chi - \frac{1}{3}\Gamma_{1^+}^{\#5}\beta n_\alpha n_\chi + \frac{1}{3}\Gamma_{1^+}^{\#3}\beta n_\alpha n_\chi - \frac{1}{3}\Gamma_{1^+}^{\#6}\alpha n_\beta n_\chi - \frac{1}{15}\Gamma_{1^+}^{\#4}\alpha n_\beta n_\chi + \frac{2}{3}\Gamma_{1^+}^{\#5}\alpha n_\beta n_\chi + \frac{1}{3}\Gamma_{1^+}^{\#3}\alpha n_\beta n_\chi - \frac{1}{3}\Gamma_{0^+}^{\#3}n_\alpha n_\beta n_\chi + \Gamma_{0^+}^{\#2}n_\alpha n_\beta n_\chi + \Gamma_{0^+}^{\#1}n_\alpha n_\beta n_\chi - \frac{1}{6}\epsilon\eta_{\alpha\beta\chi\delta}\Gamma_{0^+}^{\#1}n_\delta$	$\Delta_{\alpha\beta\chi}$
SO(3) irrep	Symmetries	Expansion in terms of the fundamental field	Source SO(3) irrep
$\Gamma_{0^+}^{\#1}$	Symmetry[0, $\Gamma_{0^+}^{\#1}$, { $\{\}$ }, StrongGenSet[{ $\{\}$, GenSet[{}]]]	$-\frac{1}{2}\Gamma_\alpha^\alpha\beta n_\beta + \frac{1}{2}\Gamma_\alpha^{\alpha\beta}n_\beta$	$\Delta_{0^+}^{\#1}$
$\Gamma_{0^+}^{\#2}$	Symmetry[0, $\Gamma_{0^+}^{\#2}$, { $\{\}$ }, StrongGenSet[{ $\{\}$, GenSet[{}]]]	$\Gamma^{\alpha\beta\chi}n_\alpha n_\beta n_\chi$	$\Delta_{0^+}^{\#2}$
$\Gamma_{0^+}^{\#3}$	Symmetry[0, $\Gamma_{0^+}^{\#3}$, { $\{\}$ }, StrongGenSet[{ $\{\}$, GenSet[{}]]]	$\Gamma_\beta^{\alpha\beta}n_\alpha + \Gamma_\alpha^\alpha\beta n_\beta + \Gamma_\alpha^{\alpha\beta}n_\beta - 3\Gamma^{\alpha\beta\chi}n_\alpha n_\beta n_\chi$	$\Delta_{0^+}^{\#3}$
$\Gamma_{0^+}^{\#4}$	Symmetry[0, $\Gamma_{0^+}^{\#4}$, { $\{\}$ }, StrongGenSet[{ $\{\}$, GenSet[{}]]]	$\Gamma_\beta^{\alpha\beta}n_\alpha - \frac{1}{2}\Gamma_\alpha^\alpha\beta n_\beta - \frac{1}{2}\Gamma_\alpha^{\alpha\beta}n_\beta$	$\Delta_{0^+}^{\#4}$
$\Gamma_{0^+}^{\#1}$	Symmetry[0, $\Gamma_{0^+}^{\#1}$, { $\{\}$ }, StrongGenSet[{ $\{\}$, GenSet[{}]]]	$\epsilon\eta_{\alpha\beta\chi\delta}\Gamma^{\alpha\beta\chi}n_\delta$	$\Delta_{0^+}^{\#1}$
$\Gamma_{1^+}^{\#1\alpha\beta}$	Symmetry[2, $\Gamma_{1^+}^{\#1\bullet 1\bullet 2}$, { $\bullet 1 \rightarrow -a, \bullet 2 \rightarrow -b$ }, StrongGenSet[{1, 2}, GenSet[{-1,2}]]]	$\frac{1}{4}\Gamma_{\alpha\beta}^\chi n_\chi - \frac{1}{4}\Gamma_{\alpha\beta}^\chi n_\chi - \frac{1}{4}\Gamma_{\beta\alpha}^\chi n_\chi + \frac{1}{4}\Gamma_{\beta\alpha}^\chi n_\chi - \frac{1}{4}\Gamma_\beta^{\chi\delta}n_\alpha n_\chi n_\delta + \frac{1}{4}\Gamma_\beta^{\chi\delta}n_\alpha n_\chi n_\delta + \frac{1}{4}\Gamma_\alpha^{\chi\delta}n_\beta n_\chi n_\delta - \frac{1}{4}\Gamma_\alpha^{\chi\delta}n_\beta n_\chi n_\delta$	$\Delta_{1^+}^{\#1\alpha\beta}$
$\Gamma_{1^+}^{\#2\alpha\beta}$	Symmetry[2, $\Gamma_{1^+}^{\#2\bullet 1\bullet 2}$, { $\bullet 1 \rightarrow -a, \bullet 2 \rightarrow -b$ }, StrongGenSet[{1, 2}, GenSet[{-1,2}]]]	$\frac{1}{2}\Gamma_\alpha^{\chi\delta}n_\chi - \frac{1}{2}\Gamma_\beta^{\chi\delta}n_\chi + \frac{1}{2}\Gamma_\beta^{\chi\delta}n_\alpha n_\chi n_\delta - \frac{1}{2}\Gamma_\beta^{\chi\delta}n_\alpha n_\chi n_\delta - \frac{1}{2}\Gamma_\alpha^{\chi\delta}n_\beta n_\chi n_\delta + \frac{1}{2}\Gamma_\alpha^{\chi\delta}n_\beta n_\chi n_\delta$	$\Delta_{1^+}^{\#2\alpha\beta}$
$\Gamma_{1^+}^{\#3\alpha\beta}$	Symmetry[2, $\Gamma_{1^+}^{\#3\bullet 1\bullet 2}$, { $\bullet 1 \rightarrow -a, \bullet 2 \rightarrow -b$ }, StrongGenSet[{1, 2}, GenSet[{-1,2}]]]	$-\frac{1}{2}\Gamma_{\alpha\beta}^\chi n_\chi - \frac{1}{2}\Gamma_\alpha^\chi\beta n_\chi + \frac{1}{2}\Gamma_{\beta\alpha}^\chi n_\chi + \frac{1}{2}\Gamma_\beta^\chi\alpha n_\chi - \Gamma_\beta^{\chi\delta}n_\alpha n_\chi n_\delta + \frac{1}{2}\Gamma_\beta^{\chi\delta}n_\alpha n_\chi n_\delta - \frac{1}{2}\Gamma_\alpha^{\chi\delta}n_\beta n_\chi n_\delta$	$\Delta_{1^+}^{\#3\alpha\beta}$
$\Gamma_{1^+}^{\#1\alpha}$	Symmetry[1, $\Gamma_{1^+}^{\#1\bullet 1}$, { $\bullet 1 \rightarrow -a$ }, StrongGenSet[{ $\{\}$, GenSet[{}]]]	$-\frac{1}{2}\Gamma_\beta^{\alpha\beta} + \frac{1}{2}\Gamma_\beta^{\alpha\beta} - \frac{1}{2}\Gamma_\beta^{\alpha\chi}n_\alpha n_\chi + \frac{1}{2}\Gamma_\beta^{\alpha\chi}n_\alpha n_\chi + \frac{1}{2}\Gamma_\alpha^{\beta\chi}n_\beta n_\chi - \frac{1}{2}\Gamma_\alpha^{\beta\chi}n_\beta n_\chi$	$\Delta_{1^+}^{\#1\alpha}$
$\Gamma_{1^+}^{\#2\alpha}$	Symmetry[1, $\Gamma_{1^+}^{\#2\bullet 1}$, { $\bullet 1 \rightarrow -a$ }, StrongGenSet[{ $\{\}$, GenSet[{}]]]	$\frac{1}{2}\Gamma_\alpha^{\beta\chi}n_\beta n_\chi - \frac{1}{2}\Gamma_\alpha^{\beta\chi}n_\beta n_\chi$	$\Delta_{1^+}^{\#2\alpha}$
$\Gamma_{1^+}^{\#3\alpha}$	Symmetry[1, $\Gamma_{1^+}^{\#3\bullet 1}$, { $\bullet 1 \rightarrow -a$ }, StrongGenSet[{ $\{\}$, GenSet[{}]]]	$\Gamma_\alpha^{\beta\chi}n_\beta n_\chi + \Gamma_\alpha^{\beta\chi}n_\beta n_\chi + \Gamma_\alpha^{\beta\chi}n_\beta n_\chi - 3\Gamma_\alpha^{\beta\chi\delta}n_\alpha n_\beta n_\chi n_\delta$	$\Delta_{1^+}^{\#3\alpha}$
$\Gamma_{1^+}^{\#4\alpha}$	Symmetry[1, $\Gamma_{1^+}^{\#4\bullet 1}$, { $\bullet 1 \rightarrow -a$ }, StrongGenSet[{ $\{\}$, GenSet[{}]]]	$\Gamma_\alpha^{\beta\beta} + \Gamma_\alpha^{\beta\beta} + \Gamma_\alpha^{\beta\beta} - \Gamma_\alpha^{\beta\chi}n_\alpha n_\beta - \Gamma_\beta^{\beta\chi}n_\alpha n_\chi - \Gamma_\beta^{\beta\chi}n_\alpha n_\chi - \Gamma_\alpha^{\beta\chi}n_\beta n_\chi - \Gamma_\alpha^{\beta\chi}n_\beta n_\chi - \Gamma_\alpha^{\beta\chi}n_\beta n_\chi + 3\Gamma_\alpha^{\beta\chi\delta}n_\alpha n_\beta n_\chi n_\delta$	$\Delta_{1^+}^{\#4\alpha}$
$\Gamma_{1^+}^{\#5\alpha}$	Symmetry[1, $\Gamma_{1^+}^{\#5\bullet 1}$, { $\bullet 1 \rightarrow -a$ }, StrongGenSet[{ $\{\}$, GenSet[{}]]]	$\Gamma_\alpha^{\beta\chi}n_\beta n_\chi - \frac{1}{2}\Gamma_\alpha^{\beta\chi}n_\beta n_\chi - \frac{1}{2}\Gamma_\alpha^{\beta\chi}n_\beta n_\chi$	$\Delta_{1^+}^{\#5\alpha}$
$\Gamma_{1^+}^{\#6\alpha}$	Symmetry[1, $\Gamma_{1^+}^{\#6\bullet 1}$, { $\bullet 1 \rightarrow -a$ }, StrongGenSet[{ $\{\}$, GenSet[{}]]]	$\Gamma_\alpha^{\beta\beta} - \frac{1}{2}\Gamma_\alpha^{\beta\beta} - \frac{1}{2}\Gamma_\alpha^{\beta\beta} - \Gamma_\alpha^{\beta\chi}n_\alpha n_\beta + \frac{1}{2}\Gamma_\beta^{\beta\chi}n_\alpha n_\chi + \frac{1}{2}\Gamma_\beta^{\beta\chi}n_\alpha n_\chi - \Gamma_\alpha^{\beta\chi}n_\beta n_\chi + \frac{1}{2}\Gamma_\alpha^{\beta\chi}n_\beta n_\chi + \frac{1}{2}\Gamma_\alpha^{\beta\chi}n_\beta n_\chi + \frac{1}{2}\Gamma_\alpha^{\beta\chi}n_\beta n_\chi$	$\Delta_{1^+}^{\#6\alpha}$
$\Gamma_{2^+}^{\#1\alpha\beta}$	Symmetry[2, $\Gamma_{2^+}^{\#1\bullet 1\bullet 2}$, { $\bullet 1 \rightarrow -a, \bullet 2 \rightarrow -b$ }, StrongGenSet[{1, 2}, GenSet[(1,2)]]]	$-\frac{1}{4}\Gamma_{\alpha\beta}^\chi n_\chi + \frac{1}{4}\Gamma_{\alpha\beta}^\chi n_\chi - \frac{1}{4}\Gamma_{\beta\alpha}^\chi n_\chi + \frac{1}{4}\Gamma_{\beta\alpha}^\chi n_\chi + \frac{1}{6}\eta_{\alpha\beta}\Gamma_\chi^{\chi\delta}n_\delta - \frac{1}{6}\eta_{\alpha\beta}\Gamma_\chi^{\chi\delta}n_\delta - \frac{1}{6}\Gamma_\chi^{\chi\delta}n_\alpha n_\beta n_\delta + \frac{1}{6}\Gamma_\chi^{\chi\delta}n_\alpha n_\beta n_\delta + \frac{1}{4}\Gamma_\beta^{\chi\delta}n_\alpha n_\chi n_\delta - \frac{1}{4}\Gamma_\beta^{\chi\delta}n_\alpha n_\chi n_\delta + \frac{1}{4}\Gamma_\alpha^{\chi\delta}n_\beta n_\chi n_\delta - \frac{1}{4}\Gamma_\alpha^{\chi\delta}n_\beta n_\chi n_\delta$	$\Delta_{2^+}^{\#1\alpha\beta}$
$\Gamma_{2^+}^{\#2\alpha\beta}$	Symmetry[2, $\Gamma_{2^+}^{\#2\bullet 1\bullet 2}$, { $\bullet 1 \rightarrow -a, \bullet 2 \rightarrow -b$ }, StrongGenSet[{1, 2}, GenSet[(1,2)]]]	$\frac{1}{2}\Gamma_{\alpha\beta}^\chi n_\chi + \frac{1}{2}\Gamma_\alpha^\chi\beta n_\chi + \frac{1}{2}\Gamma_{\beta\alpha}^\chi n_\chi + \frac{1}{2}\Gamma_\beta^\chi\alpha n_\chi + \frac{1}{2}\Gamma_{\alpha\beta}^\chi n_\chi + \frac{1}{2}\Gamma_\beta^{\chi\delta}n_\alpha n_\chi - \frac{1}{3}\eta_{\alpha\beta}\Gamma_\chi^{\chi\delta}n_\delta + \frac{1}{3}\Gamma_\chi^{\chi\delta}n_\alpha n_\beta n_\delta - \frac{1}{3}\Gamma_\chi^{\chi\delta}n_\alpha n_\beta n_\delta - \frac{1}{3}\Gamma_\alpha^{\chi\delta}n_\beta n_\chi n_\delta - \frac{1}{3}\Gamma_\alpha^{\chi\delta}n_\$	