

	$\Delta_{1^+ \alpha \beta}^{\#1}$	$\Delta_{1^+ \alpha \beta}^{\#2}$	$\Delta_{1^+ \alpha \beta}^{\#3}$	$\Delta_{1^+ \alpha}^{\#1}$	$\Delta_{1^+ \alpha}^{\#2}$	$\Delta_{1^+ \alpha}^{\#3}$	$\Delta_{1^+ \alpha}^{\#4}$	$\Delta_{1^+ \alpha}^{\#5}$	$\Delta_{1^+ \alpha}^{\#6}$	$\mathcal{T}_{1^+ \alpha}^{\#1}$
$\Delta_{1^+}^{\#1} \uparrow^{\alpha \beta}$	0	$-\frac{2\sqrt{2}}{a_0}$	0	0	0	0	0	0	0	0
$\Delta_{1^+}^{\#2} \uparrow^{\alpha \beta}$	$-\frac{2\sqrt{2}}{a_0}$	$\frac{2(a_0^2-14a_0c_1k^2-35c_1^2k^4)}{a_0^2(a_0-29c_1k^2)}$	$\frac{40\sqrt{2}c_1k^2}{a_0^2-29a_0c_1k^2}$	0	0	0	0	0	0	0
$\Delta_{1^+}^{\#3} \uparrow^{\alpha \beta}$	0	$\frac{40\sqrt{2}c_1k^2}{a_0^2-29a_0c_1k^2}$	$\frac{4}{a_0-29c_1k^2}$	0	0	0	0	0	0	0
$\Delta_{1^+}^{\#1} \uparrow^\alpha$	0	0	0	0	$\frac{\sqrt{2}(4+k^2)}{a_0(2+k^2)}$	$-\frac{2k^2}{\sqrt{3}a_0(2+k^2)}$	0	$\frac{\sqrt{\frac{2}{3}}k^2}{a_0(2+k^2)}$	0	$-\frac{2i\sqrt{2}k}{a_0(2+k^2)}$
$\Delta_{1^+}^{\#2} \uparrow^\alpha$	0	0	0	$\frac{\sqrt{2}(4+k^2)}{a_0(2+k^2)}$	$\frac{a_0^2(4+k^2)^2-30a_0c_1k^2(4+k^2)(4+3k^2)+c_1^2k^4(6416+7928k^2+1901k^4)}{2a_0^2(2+k^2)^2(a_0-33c_1k^2)}$	$\frac{k^2(a_0^2(-2+k^2)+a_0c_1(560+302k^2+71k^4))-2c_1^2k^2(9440+1901k^2(4+k^2)))}{2\sqrt{6}a_0^2(2+k^2)^2(a_0-33c_1k^2)}$	$-\frac{\sqrt{\frac{5}{6}}k^2(a_0+c_1(40-31k^2))}{2a_0(2+k^2)(a_0-33c_1k^2)}$	$\frac{k^2(2a_0^2(5+2k^2)-a_0c_1(880+778k^2+199k^4)+c_1^2k^2(9440+1901k^2(4+k^2)))}{2\sqrt{3}a_0^2(2+k^2)^2(a_0-33c_1k^2)}$	$\frac{k^2(-a_0+c_1(200+43k^2))}{\sqrt{6}a_0(2+k^2)(a_0-33c_1k^2)}$	$-\frac{ik(-30a_0c_1k^4+a_0^2(4+k^2)+27c_1^2k^4(-28+3k^2))}{a_0^2(2+k^2)^2(a_0-33c_1k^2)}$
$\Delta_{1^+}^{\#3} \uparrow^\alpha$	0	0	0	$-\frac{2k^2}{\sqrt{3}(2a_0+a_0k^2)}$	$\frac{k^2(a_0^2(-2+k^2)+a_0c_1(560+302k^2+71k^4))-2c_1^2k^2(9440+1901k^2(4+k^2)))}{2\sqrt{6}a_0^2(2+k^2)^2(a_0-33c_1k^2)}$	$\frac{-a_0^2(76+52k^2+3k^4)+4a_0c_1k^2(472+214k^2+19k^4)+4c_1^2k^4(5120+7280k^2+1901k^4)}{12a_0^2(2+k^2)^2(a_0-33c_1k^2)}$	$\frac{\sqrt{5}(10a_0+(3a_0-328c_1)k^2-62c_1k^4)}{12a_0(2+k^2)(a_0-33c_1k^2)}$	$\frac{2a_0^2(-2+k^2)+a_0c_1k^2(472+934k^2+289k^4))-2c_1^2k^4(5120+7280k^2+1901k^4)}{6\sqrt{2}a_0^2(2+k^2)^2(a_0-33c_1k^2)}$	$\frac{-2a_0+(3a_0-56c_1)k^2+86c_1k^4}{6a_0(2+k^2)(a_0-33c_1k^2)}$	$\frac{ik(54c_1^2k^4(40+3k^2)+a_0^2(6+5k^2)-3a_0c_1k^2(86+23k^2))}{\sqrt{6}a_0^2(2+k^2)^2(a_0-33c_1k^2)}$
$\Delta_{1^+}^{\#4} \uparrow^\alpha$	0	0	0	0	$-\frac{\sqrt{\frac{5}{6}}k^2(a_0+c_1(40-31k^2))}{2a_0(2+k^2)(a_0-33c_1k^2)}$	$\frac{\sqrt{5}(10a_0+k^2(3a_0-2c_1(164+31k^2))))}{12a_0(2+k^2)(a_0-33c_1k^2)}$	$\frac{1}{12a_0-396c_1k^2}$	$\frac{\sqrt{\frac{5}{2}}(-2a_0+c_1k^2(164+31k^2))}{6a_0(2+k^2)(a_0-33c_1k^2)}$	$-\frac{\sqrt{5}}{6(a_0-33c_1k^2)}$	$-\frac{i\sqrt{\frac{5}{6}}k(a_0-51c_1k^2)}{a_0(2+k^2)(a_0-33c_1k^2)}$
$\Delta_{1^+}^{\#5} \uparrow^\alpha$	0	0	0	$\frac{\sqrt{\frac{2}{3}}k^2}{a_0(2+k^2)}$	$\frac{k^2(2a_0^2(5+2k^2)-a_0c_1(880+778k^2+199k^4)+c_1^2k^2(9440+1901k^2(4+k^2)))}{2\sqrt{3}a_0^2(2+k^2)^2(a_0-33c_1k^2)}$	$\frac{2a_0^2(-2+k^2)+a_0c_1k^2(472+934k^2+289k^4))-2c_1^2k^4(5120+7280k^2+1901k^4)}{6\sqrt{2}a_0^2(2+k^2)^2(a_0-33c_1k^2)}$	$\frac{\sqrt{\frac{5}{2}}(-2a_0+c_1k^2(164+31k^2))}{6a_0(2+k^2)(a_0-33c_1k^2)}$	$\frac{4a_0^2(17+14k^2+3k^4)-4a_0c_1k^2(236+287k^2+77k^4)+c_1^2k^4(5120+7280k^2+1901k^4)}{6a_0^2(2+k^2)^2(a_0-33c_1k^2)}$	$\frac{-c_1k^2(28-43k^2)+2a_0(7+3k^2)}{3\sqrt{2}a_0(2+k^2)(a_0-33c_1k^2)}$	$\frac{ik(2a_0^2(3+k^2)-27c_1^2k^4(40+3k^2)+3a_0c_1k^2(34+7k^2))}{\sqrt{3}a_0^2(2+k^2)^2(a_0-33c_1k^2)}$
$\Delta_{1^+}^{\#6} \uparrow^\alpha$	0	0	0	0	$\frac{k^2(-a_0+c_1(200+43k^2))}{\sqrt{6}a_0(2+k^2)(a_0-33c_1k^2)}$	$-\frac{2a_0+(3a_0-56c_1)k^2+86c_1k^4}{6a_0(2+k^2)(a_0-33c_1k^2)}$	$-\frac{\sqrt{5}}{6(a_0-33c_1k^2)}$	$\frac{-c_1k^2(28-43k^2)+2a_0(7+3k^2)}{3\sqrt{2}a_0(2+k^2)(a_0-33c_1k^2)}$	$\frac{5}{3(a_0-33c_1k^2)}$	$-\frac{i\sqrt{\frac{2}{3}}k(a_0+57c_1k^2)}{a_0(2+k^2)(a_0-33c_1k^2)}$
$\mathcal{T}_{1^+}^{\#1} \uparrow^\alpha$	0	0	0	$\frac{2i\sqrt{2}k}{2a_0+a_0k^2}$	$\frac{i(-30a_0c_1k^5+a_0^2k(4+k^2)+27c_1^2k^5(-28+3k^2))}{a_0^2(2+k^2)^2(a_0-33c_1k^2)}$	$-\frac{i(54c_1^2k^5(40+3k^2)+a_0^2k(6+5k^2)-3a_0c_1k^3(86+23k^2))}{\sqrt{6}a_0^2(2+k^2)^2(a_0-33c_1k^2)}$	$\frac{i\sqrt{\frac{5}{6}}k(a_0-51c_1k^2)}{a_0(2+k^2)(a_0-33c_1k^2)}$	$-\frac{i(2a_0^2k(3+k^2)-27c_1^2k^5(40+3k^2)+3a_0c_1k^3(34+7k^2))}{\sqrt{3}a_0^2(2+k^2)^2(a_0-33c_1k^2)}$	$\frac{i\sqrt{\frac{2}{3}}k(a_0+57c_1k^2)}{a_0(2+k^2)(a_0-33c_1k^2)}$	$\frac{2k^2(a_0^2+30a_0c_1k^2-459c_1^2k^4)}{a_0^2(2+k^2)^2(a_0-33c_1k^2)}$

	$\Gamma_{1^+ \alpha \beta}^{\#1}$	$\Gamma_{1^+ \alpha \beta}^{\#2}$	$\Gamma_{1^+ \alpha \beta}^{\#3}$	$\Gamma_{1^+ \alpha}^{\#1}$	$\Gamma_{1^+ \alpha}^{\#2}$	$\Gamma_{1^+ \alpha}^{\#3}$	$\Gamma_{1^+ \alpha}^{\#4}$	$\Gamma_{1^+ \alpha}^{\#5}$	$\Gamma_{1^+ \alpha}^{\#6}$	$h_{1^+ \alpha}^{\#1}$
$\Gamma_{1^+}^{\#1} \uparrow^{\alpha \beta}$	$\frac{1}{4}(-a_0-15c_1k^2)$	$-\frac{a_0}{2\sqrt{2}}$	$5c_1k^2$	0	0	0	0	0	0	0
$\Gamma_{1^+}^{\#2} \uparrow^{\alpha \beta}$	$-\frac{a_0}{2\sqrt{2}}$	0	0	0	0	0	0	0	0	0
$\Gamma_{1^+}^{\#3} \uparrow^{\alpha \beta}$	$5c_1k^2$	0	$\frac{1}{4}(a_0-29c_1k^2)$	0	0	0	0	0	0	0
$\Gamma_{1^+}^{\#1} \uparrow^\alpha$	0	0	0	$\frac{1}{4}(-a_0-3c_1k^2)$	$\frac{a_0}{2\sqrt{2}}$	$\frac{5}{2}\sqrt{3}c_1k^2$	$-\frac{5}{2}\sqrt{\frac{5}{3}}c_1k^2$	$5\sqrt{\frac{3}{2}}c_1k^2$	$-\frac{5c_1k^2}{\sqrt{3}}$	$-\frac{ia_0k}{4\sqrt{2}}$
$\Gamma_{1^+}^{\#2} \uparrow^\alpha$	0	0	0	$\frac{a_0}{2\sqrt{2}}$	0	0	0	0	0	0
$\Gamma_{1^+}^{\#3} \uparrow^\alpha$	0	0	0	$\frac{5}{2}\sqrt{3}c_1k^2$	0	$-\frac{a_0}{3}$	$\frac{1}{6}\sqrt{5}(a_0-8c_1k^2)$	$-\frac{a_0}{6\sqrt{2}}$	$\frac{1}{6}(-a_0+20c_1k^2)$	$\frac{ia_0k}{4\sqrt{6}}$
$\Gamma_{1^+}^{\#4} \uparrow^\alpha$	0	0	0	$\frac{5}{2}\sqrt{\frac{5}{3}}c_1k^2$	0	$\frac{1}{6}\sqrt{5}(a_0-8c_1k^2)$	$\frac{1}{3}(a_0+7c_1k^2)$	$-\frac{1}{6}\sqrt{\frac{5}{2}}(a_0+16c_1k^2)$	$\frac{1}{6}\sqrt{5}(a_0-5c_1k^2)$	$-\frac{1}{4}i\sqrt{\frac{5}{6}}a_0k$
$\Gamma_{1^+}^{\#5} \uparrow^\alpha$	0	0	0	$5\sqrt{\frac{3}{2}}c_1k^2$	0	$-\frac{a_0}{6\sqrt{2}}$	$-\frac{1}{6}\sqrt{\frac{5}{2}}(a_0+16c_1k^2)$	$\frac{a_0}{3}$	$\frac{a_0+40c_1k^2}{6\sqrt{2}}$	$\frac{ia_0k}{4\sqrt{3}}$
$\Gamma_{1^+}^{\#6} \uparrow^\alpha$	0	0	0	$-\frac{5c_1k^2}{\sqrt{3}}$	0	$\frac{1}{6}(-a_0+20c_1k^2)$	$-\frac{1}{6}\sqrt{5}(a_0-5c_1k^2)$	$\frac{a_0+40c_1k^2}{6\sqrt{2}}$	$\frac{5}{12}(a_0-17c_1k^2)$	$\frac{ia_0k}{4\sqrt{6}}$
$h_{1^+}^{\#1} \uparrow^\alpha$	0	0	0	$\frac{ia_0k}{4\sqrt{2}}$	0	$-\frac{ia_0k}{4\sqrt{6}}$	$\frac{1}{4}i\sqrt{\frac{5}{6}}a_0k$	$\frac{ia_0k}{4\sqrt{3}}$	$\frac{ia_0k}{4\sqrt{6}}$	0

Lagrangian density	
$-\frac{1}{2}a_0\Gamma^{\alpha\beta\chi}\Gamma_{\beta\chi\alpha}+\frac{1}{2}a_0\Gamma^{\alpha\beta\chi}\Gamma_{\beta\chi}^{\alpha}-\frac{1}{4}a_0h^{\chi\chi}\partial_{\beta}\Gamma^{\alpha\beta}+\frac{1}{4}a_0h^{\chi\chi}\partial_{\beta}\Gamma^{\alpha\beta}+\frac{11}{2}c_1\partial^{\alpha}\Gamma^{\chi\delta}\partial_{\delta}\Gamma_{\chi\alpha}^{\beta}+\frac{1}{2}c_1\partial^{\alpha}\Gamma_{\chi\alpha}^{\beta}\partial_{\beta}\Gamma^{\chi\delta}-19c_1\partial^{\alpha}\Gamma^{\chi\delta}\partial_{\beta}\Gamma_{\delta\alpha}^{\beta}+\frac{1}{2}a_0h_{\beta\chi}\partial^{\chi}\Gamma^{\alpha\beta}-\frac{1}{2}c_1\partial_{\beta}\Gamma_{\chi\alpha}^{\delta}\partial^{\chi}\Gamma^{\alpha\beta}-\frac{1}{2}c_1\partial_{\beta}\Gamma_{\delta\chi}^{\delta}\partial^{\chi}\Gamma^{\alpha\beta}+\frac{1}{2}c_1\partial_{\chi}\Gamma_{\beta}^{\delta}\partial^{\chi}\Gamma^{\alpha\beta}-\frac{1}{2}c_1\partial_{\chi}\Gamma_{\beta\delta}^{\delta}\partial^{\chi}\Gamma^{\alpha\beta}-\frac{1}{2}c_1\partial_{\chi}\Gamma_{\delta\beta}^{\delta}\partial^{\chi}\Gamma^{\alpha\beta}-\frac{11}{2}c_1\partial_{\beta}\Gamma_{\chi}^{\delta}\partial^{\delta}\Gamma^{\alpha\beta}+\frac{19}{2}c_1\partial_{\beta}\Gamma_{\chi\delta}^{\delta}\partial^{\delta}\Gamma^{\alpha\beta}+\frac{11}{2}c_1\partial_{\chi}\Gamma_{\beta}^{\delta}\partial^{\delta}\Gamma^{\alpha\beta}-\frac{1}{2}c_1\partial_{\chi}\Gamma_{\chi}^{\delta}\partial^{\chi}\Gamma^{\alpha\beta}+c_1\partial_{\alpha}\Gamma_{\chi}^{\delta}\partial^{\chi}\Gamma^{\alpha\beta}-c_1\partial_{\chi}\Gamma_{\alpha}^{\delta}\partial^{\chi}\Gamma^{\alpha\beta}-\frac{1}{2}c_1\partial_{\chi}\Gamma^{\alpha\beta\chi}\partial_{\delta}\Gamma_{\alpha\beta}^{\delta}-\frac{1}{2}c_1\partial_{\beta}\Gamma^{\alpha\beta\chi}\partial_{\delta}\Gamma_{\alpha\chi}^{\delta}-\frac{1}{2}c_1\partial_{\beta}\Gamma^{\alpha\beta\chi}\partial_{\delta}\Gamma_{\chi\alpha}^{\delta}+\frac{19}{2}c_1\partial_{\chi}\Gamma^{\alpha\beta\chi}\partial_{\delta}\Gamma_{\beta\alpha}^{\delta}+c_1\partial^{\chi}\Gamma^{\alpha\beta}\partial_{\delta}\Gamma_{\beta\chi}^{\delta}+\frac{1}{2}c_1\partial^{\chi}\Gamma^{\alpha\beta}\partial_{\delta}\Gamma_{\chi\beta}^{\delta}+\frac{1}{2}c_1\partial^{\chi}\Gamma^{\alpha\beta}\partial_{\delta}\Gamma_{\chi\beta}^{\delta}-\frac{1}{2}c_1\partial_{\beta}\Gamma^{\alpha\beta\chi}\partial_{\delta}\Gamma_{\chi\beta}^{\delta}+\frac{1}{2}c_1\partial^{\chi}\Gamma^{\alpha\beta}\partial_{\delta}\Gamma_{\chi\beta}^{\delta}+\frac{1}{2}c_1\partial^{\chi}\Gamma^{\alpha\beta}\partial_{\delta}\Gamma_{\chi\beta}^{\delta}+\frac{1}{2}c_1\partial_{\alpha}\Gamma_{\chi\beta\delta}^{\delta}\partial^{\delta}\Gamma^{\alpha\beta\chi}+c_1\partial_{\alpha}\Gamma_{\chi\beta\delta}^{\delta}\partial^{\delta}\Gamma^{\alpha\beta\chi}+\frac{1}{2}c_1\partial_{\alpha}\Gamma_{\chi\delta\beta}^{\delta}\partial^{\delta}\Gamma^{\alpha\beta\chi}-\frac{1}{2}c_1\partial_{\beta}\Gamma_{\chi\delta\alpha}^{\delta}\partial^{\delta}\Gamma^{\alpha\beta\chi}-\frac{1}{2}c_1\partial_{\chi}\Gamma_{\beta\delta\alpha}^{\delta}\partial^{\delta}\Gamma^{\alpha\beta\chi}+c_1\partial_{\alpha}\Gamma_{\chi\beta\delta}^{\delta}\partial^{\delta}\Gamma^{\alpha\beta\chi}-c_1\partial_{\delta}\Gamma_{\alpha\chi\beta}^{\delta}\partial^{\delta}\Gamma^{\alpha\beta\chi}-\frac{1}{2}c_1\partial_{\delta}\Gamma_{\beta\alpha\chi}^{\delta}\partial^{\delta}\Gamma^{\alpha\beta\chi}-\frac{1}{2}c_1\partial_{\delta}\Gamma_{\beta\chi\alpha}^{\delta}\partial^{\delta}\Gamma^{\alpha\beta\chi}-\frac{1}{2}c_1\partial_{\delta}\Gamma_{\chi\beta\alpha}^{\delta}\partial^{\delta}\Gamma^{\alpha\beta\chi}-\frac{11}{2}c_1\partial_{\beta}\Gamma_{\delta\alpha}^{\beta}\partial^{\delta}\Gamma_{\beta\chi}^{\alpha}-\frac{1}{2}c_1\partial^{\alpha}\Gamma_{\delta\alpha}^{\beta}\partial^{\delta}\Gamma_{\beta\chi}^{\alpha}+\frac{1}{2}c_1\partial_{\beta}\Gamma_{\delta\alpha}^{\beta}\partial^{\delta}\Gamma_{\chi}^{\alpha}$	
Added source term:	$h^{\alpha\beta}\mathcal{T}_{\alpha\beta}+\Gamma^{\alpha\beta\chi}\Delta_{\alpha\beta\chi}$

	$\Gamma_{0^+}^{\#1}$	$\Gamma_{0^+}^{\#2}$	$\Gamma_{0^+}^{\#3}$	$\Gamma_{0^+}^{\#4}$	$h_{0^+}^{\#1}$	$h_{0^+}^{\#2}$	$\Gamma_{0^+}^{\#1}$
$\Gamma_{0^+}^{\#1} \uparrow^{\alpha \beta}$	$\frac{1}{2}(a_0+25c_1k^2)$	0	$10\sqrt{\frac{2}{3}}c_1k^2$	$-\frac{10c_1k^2}{\sqrt{3}}$	$-\frac{ia_0k}{2\sqrt{2}}$	0	0
$\Gamma_{0^+}^{\#2} \uparrow^{\alpha \beta}$	0	0	$\frac{a_0}{2}$	$-\frac{a_0}{2\sqrt{2}}$	$\frac{ia_0k}{4\sqrt{6}}$	0	0
$\Gamma_{0^+}^{\#3} \uparrow^{\alpha \beta}$	$-\frac{10c_1k^2}{\sqrt{3}}$	$\frac{a_0}{2}$	$\frac{23c_1k^2}{3}$	$-\frac{3a_0+46c_1k^2}{6\sqrt{2}}$	$-\frac{ia_0k}{4\sqrt{3}}$	0	0
$\Gamma_{0^+}^{\#4} \uparrow^{\alpha \beta}$	$10\sqrt{\frac{2}{3}}c_1k^2$	$\frac{a_0}{2}$	$\frac{23c_1k^2}{3}$	$-\frac{3a_0+46c_1k^2}{6\sqrt{2}}$	$-\frac{ia_0k}{4\sqrt{3}}$	0	0
$h_{0^+}^{\#1} \uparrow^{\alpha \beta}$	$-\frac{ia_0k}{2\sqrt{2}}$	0	$\frac{ia_0k}{4\sqrt{3}}$	$-\frac{ia_0k}{4\sqrt{2}}$	$\frac{ia_0k}{4\sqrt{6}}$	0	0
$h_{0^+}^{\#2} \uparrow^{\alpha \beta}$	0	0	$\frac{ia_0k}{4}$	$-\frac{ia_0k}{4\sqrt{2}}$	$\frac{ia_0k}{4\sqrt{6}}$	0	0
$\Gamma_{0^+}^{\#1} \uparrow^\alpha$	0	0	0	0	0	0	0
$\Gamma_{0^+}^{\#2} \uparrow^\alpha$	0	0	0	0	0	0	0
$\Gamma_{0^+}^{\#3} \uparrow^\alpha$	0	0	0	0	0	0	0
$\Gamma_{0^+}^{\#4} \uparrow^\alpha$	0	0	0	0	0	0	0
$h_{0^+}^{\#1} \uparrow^\alpha$	0	0	0	0	0	0	0
$h_{0^+}^{\#2} \uparrow^\alpha$	0	0	0	0	0	0	0
$\Gamma_{0^+}^{\#1} \uparrow^\alpha$	$\frac{1}{2}(a_0+c_1k^2)$	0	0	0	0	0	0

	$\Gamma_{2^+ \alpha \beta}^{\#1}$	$\Gamma_{2^+ \alpha \beta}^{\#2}$	$\Gamma_{2^+ \alpha \beta}^{\#3}$	$h_{2^+ \alpha \beta}^{\#1}$	$\Gamma_{2^+ \alpha \beta \chi}^{\#1}$	$\Gamma_{2^+ \alpha \beta \chi}^{\#2}$
$\Gamma_{2^+}^{\#1} \uparrow^{\alpha \beta}$	$\frac{1}{4}(a_0 + 11 c_1 k^2)$	$-5 \sqrt{\frac{2}{3}} c_1 k^2$	$-5 \sqrt{\frac{2}{3}} c_1 k^2$	$\frac{5 c_1 k^2}{\sqrt{3}}$	$\frac{ia_0 k}{4 \sqrt{2}}$	0
$\Gamma_{2^+}^{\#2} \uparrow^{\alpha \beta}$	$-5 \sqrt{\frac{2}{3}} c_1 k^2$	$\frac{1}{6}(-3 a_0 + c_1 k^2)$	$\frac{1}{6}(-3 a_0 + c_1 k^2)$	$-\frac{c_1 k^2}{6 \sqrt{2}}$	$\frac{ia_0 k}{4 \sqrt{3}}$	0
$\Gamma_{2^+}^{\#3} \uparrow^{\alpha \beta}$	$\frac{5 c_1 k^2}{\sqrt{3}}$	$-\frac{c_1 k^2}{6 \sqrt{2}}$	$\frac{1}{12}(3 a_0 + c_1 k^2)$	$-\frac{c_1 k^2}{6 \sqrt{2}}$	$-\frac{ia_0 k}{4 \sqrt{6}}$	0
$h_{2^+}^{\#1} \uparrow^{\alpha \beta}$	$-\frac{ia_0 k}{4 \sqrt{2}}$	$-\frac{ia_0 k}{4 \sqrt{3}}$	$\frac{ia_0 k}{4 \sqrt{6}}$	0	0	0
$\Gamma_{2^+}^{\#1} \uparrow^{\alpha \beta \chi}$	0	0	0	0	$\frac{1}{4}(a_0 - c_1 k^2)$	0
$\Gamma_{2^+}^{\#2} \uparrow^{\alpha \beta \chi}$	0	0	0	0	$\frac{1}{4}(a_0 - 5 c_1 k^2)$	0