

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

Source constraints					
SO(3) irreps	$2\mathcal{T}_{0^+}^{\#0}-i k \Delta_{0^+}^{\#2} = 0$	1	1	$\#$	
	$\Delta_{0^+}^{\#3} + 2 \Delta_{0^+}^{\#4} + 3 \Delta_{0^+}^{\#7} = 0$	1			
	$6 \mathcal{T}_{1^+}^{\#1 \alpha} - i k (3 \Delta_{1^+}^{\#2 \alpha} - \Delta_{1^+}^{\#5 \alpha} + \Delta_{1^+}^{\#3 \alpha}) = 0$	3			
	$2 \Delta_{1^+}^{\#9 \alpha} + \Delta_{1^+}^{\#4 \alpha} + 2 \Delta_{1^+}^{\#5 \alpha} + \Delta_{1^+}^{\#3 \alpha} = 0$	3			
Total #:	8				

$$\Gamma_{3^+}^{\#1} \dagger \alpha \beta \chi \quad \frac{\Gamma_{3^+}^{\#1}}{2} \alpha \beta \chi$$

$$\Delta_{3^+}^{\#1} \dagger \alpha \beta \chi \quad \frac{\Delta_{3^+}^{\#1}}{2} \alpha \beta \chi$$

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

	$\Delta_{2^+}^{\#1} \alpha \beta$	$\Delta_{2^+}^{\#2} \alpha \beta$	$\Delta_{2^+}^{\#3} \alpha \beta$	$\mathcal{T}_{2^+}^{\#1} \alpha \beta$	$\Delta_{2^+}^{\#1} \alpha \beta \chi$	$\Delta_{2^+}^{\#2} \alpha \beta \chi$
$\Delta_{2^+}^{\#1} \dagger \alpha \beta$	0	$\frac{2\sqrt{\frac{2}{3}}}{a_0}$	$\frac{4}{\sqrt{3}a_0}$	$\frac{4i\sqrt{2}}{a_0k}$	0	0
$\Delta_{2^+}^{\#2} \dagger \alpha \beta$	$\frac{2\sqrt{\frac{2}{3}}}{a_0}$	$\frac{-8(a_0+13c_1k^2)}{3a_0^2}$	$\frac{-2\sqrt{2}(a_0+52c_1k^2)}{3a_0^2}$	$\frac{-4i(a_0+31c_1k^2)}{\sqrt{3}a_0^2k}$	0	0
$\Delta_{2^+}^{\#3} \dagger \alpha \beta$	$\frac{4}{\sqrt{3}a_0}$	$\frac{-2\sqrt{2}(a_0+52c_1k^2)}{3a_0^2}$	$\frac{8(a_0-26c_1k^2)}{3a_0^2}$	$\frac{-4i\sqrt{\frac{2}{3}}(a_0+31c_1k^2)}{a_0^2k}$	0	0
$\mathcal{T}_{2^+}^{\#1} \dagger \alpha \beta$	$\frac{4i\sqrt{2}}{a_0k}$	$\frac{4i(a_0+31c_1k^2)}{\sqrt{3}a_0^2k}$	$\frac{4i\sqrt{\frac{2}{3}}(a_0+31c_1k^2)}{a_0^2k}$	$\frac{-8(a_0+11c_1k^2)}{a_0^2k^2}$	0	0
$\Delta_{2^+}^{\#1} \dagger \alpha \beta \chi$	0	0	0	0	$\frac{4}{a_0c_1k^2}$	0
$\Delta_{2^+}^{\#2} \dagger \alpha \beta \chi$	0	0	0	0	0	$\frac{4}{a_05c_1k^2}$

	$\Gamma_{2^+}^{\#1} \alpha \beta$	$\Gamma_{2^+}^{\#2} \alpha \beta$	$\Gamma_{2^+}^{\#3} \alpha \beta$	$h_{2^+}^{\#1} \alpha \beta$	$\Gamma_{2^+}^{\#1} \alpha \beta \chi$	$\Gamma_{2^+}^{\#2} \alpha \beta \chi$
$\Gamma_{2^+}^{\#1} \dagger \alpha \beta$	$\frac{1}{4}(a_0+11c_1k^2)$	$-5\sqrt{\frac{2}{3}}c_1k^2$	$\frac{5c_1k^2}{\sqrt{3}}$	$\frac{ia_0k}{4\sqrt{2}}$	0	0
$\Gamma_{2^+}^{\#2} \dagger \alpha \beta$	$-5\sqrt{\frac{2}{3}}c_1k^2$	$\frac{1}{6}(-3a_0+c_1k^2)$	$-\frac{c_1k^2}{6\sqrt{2}}$	$\frac{ia_0k}{4\sqrt{3}}$	0	0
$\Gamma_{2^+}^{\#3} \dagger \alpha \beta$	$\frac{5c_1k^2}{\sqrt{3}}$	$-\frac{c_1k^2}{6\sqrt{2}}$	$\frac{1}{12}(3a_0+c_1k^2)$	$-\frac{ia_0k}{4\sqrt{6}}$	0	0
$h_{2^+}^{\#1} \dagger \alpha \beta$	$-\frac{ia_0k}{4\sqrt{2}}$	$-\frac{ia_0k}{4\sqrt{3}}$	$\frac{ia_0k}{4\sqrt{6}}$	0	0	0
$\Gamma_{2^+}^{\#1} \dagger \alpha \beta \chi$	0	0	0	0	$\frac{1}{4}(a_0-c_1k^2)$	0
$\Gamma_{2^+}^{\#2} \dagger \alpha \beta \chi$	0	0	0	0	0	$\frac{1}{4}(a_0-5c_1k^2)$

Added source term: $\left| h_{\alpha\beta}^{\dagger} \mathcal{T}_{\alpha\beta} + \Gamma_{\alpha\beta}^{\dagger} \Delta_{\alpha\beta} \chi \right.$

Lagrangian density

$$\begin{aligned} & -\frac{1}{2}a_0\Gamma_{\beta\alpha}^{\dagger}\Gamma_{\beta\alpha}+\frac{1}{2}a_0\Gamma_{\alpha}^{\dagger}\alpha^{\beta}\Gamma^{\alpha}_{\beta}-\frac{1}{4}a_0h^{\alpha}_{\beta}h^{\beta}_{\alpha}\chi\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}+ \\ & +\frac{1}{4}a_0h^{\alpha}_{\beta}h^{\beta}_{\alpha}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}a_0h_{\alpha\gamma}\partial_{\beta}\partial^{\alpha}\chi\partial^{\beta}\chi+\frac{11}{2}c_1\partial^{\alpha}\chi\partial^{\beta}\alpha^{\beta}+\frac{1}{2}a_0h^{\alpha}_{\beta}h^{\beta}_{\alpha}\partial^{\alpha}\alpha^{\beta}+ \\ & +\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}+\frac{1}{2}a_0h_{\beta\alpha}h^{\beta}_{\alpha}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}+\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{11}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}+ \\ & +\frac{19}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}+\frac{11}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}+c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}+ \\ & +\frac{19}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}+c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}+\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}+ \\ & +\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}+\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}+ \\ & +\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}+c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}+\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}+c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}+ \\ & +c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}+\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}+c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}+ \\ & +c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}- \\ & -\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2}c_1\partial^{\alpha}\chi\partial_{\beta}\alpha^{\beta}\partial^{\alpha}\alpha^{\beta}-\frac{1}{2$$