$$\frac{1}{6} \left(-6 \, Y_{\text{bd}} \, \frac{1!}{1!} \mathcal{R}^{\parallel}_{\text{ac}} + 6 \, Y_{\text{bc}} \, \frac{1!}{1!} \mathcal{R}^{\parallel}_{\text{ad}} + 6 \, Y_{\text{bd}} \, \frac{2!}{1!} \mathcal{R}^{\parallel}_{\text{ac}} - 6 \, Y_{\text{bc}} \, \frac{2!}{1!} \mathcal{R}^{\parallel}_{\text{ad}} + 3 \, Y_{\text{bd}} \, \frac{1!}{1!} \mathcal{R}^{\parallel}_{\text{c}} \, n_{\text{a}} - 3 \, Y_{\text{bc}} \, \frac{1!}{1!} \mathcal{R}^{\parallel}_{\text{d}} \, n_{\text{a}} + 8 \, \frac{2!}{1!} \mathcal{R}^{\parallel}_{\text{dd}} \, n_{\text{a}} - \frac{6!}{1!} \mathcal{R}^{\parallel}_{\text{cd}} \, n_{\text{a}} \, n_{\text{a}} - \frac{6!}{1!} \mathcal{R}^{\parallel}_{\text{dd}} \, n_{\text{a}} \, n_{\text{a}} - \frac{6!}{1!} \mathcal{R}^{\parallel}_{\text{dd}} \, n_{\text{b}} \, n_{\text{c}} - \frac{6!}{1!} \mathcal{R}^{\parallel}_{\text{dd}} \, n_{\text{b}} \, n_{\text{c}} + 6 \, \frac{1!}{1!} \mathcal{R}^{\parallel}_{\text{bd}} \, n_{\text{a}} \, n_{\text{c}} - 6 \, \frac{2!}{1!} \mathcal{R}^{\parallel}_{\text{dd}} \, n_{\text{b}} \, n_{\text{c}} + 6 \, \frac{1!}{1!} \mathcal{R}^{\parallel}_{\text{bd}} \, n_{\text{a}} \, n_{\text{c}} - \frac{6!}{1!} \mathcal{R}^{\parallel}_{\text{bd}} \, n_{\text{d}} \, n_{\text{c}} - \frac{6!}{1!} \mathcal{R}^{\parallel}_{\text{bd}} \, n_{\text{d}} \, n_{\text{c}} - \frac{6!}{1!} \mathcal{R}^{\parallel}_{\text{dd}} \, n_{\text{b}} \, n_{\text{c}} + \frac{9!}{1!} \mathcal{R}^{\parallel}_{\text{d}} \, n_{\text{b}} \, n_{\text{c}} \right) + \frac{6!}{1!} \mathcal{R}^{\parallel}_{\text{bc}} \, n_{\text{d}} \, n_{\text{d}} + \frac{9!}{1!} \mathcal{R}^{\parallel}_{\text{dd}} \, n_{\text{d}} + \frac{9!}{1!} \mathcal{R}^{\parallel}_{\text{dd}} \, n_{\text{d}} - 6 \, \frac{1!}{1!} \mathcal{R}^{\parallel}_{\text{bd}} \, n_{\text{d}} + \frac{9!}{1!} \mathcal{R}^{\parallel}_{\text{dd}} \,$$